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PHP7 Dasturlash tili

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Respublikamizda axborot – kommunikatsiya texnologiyalarini keng miqyosda qo‘llashni amalga oshirish yuqori malakali dasturchilarni tayyorlash masalasini ko‘ndalang qo‘ymoqda. Shu maqsadda tayyorlangan ushbu o‘quv qo‘llanma 5330200 – “Informatika va axborot texnologiyalari”(dasturiy ta’minot) ta’lim yo‘nalishi talabalariga “Veb dasturlash” fanini o‘qitishga mo‘ljallangan, xuddi shuningdek, ushbu o‘quv qo‘llanmadan 5130200 - “Amaliy matematika va informatika”, 5110700 - “Informatika o‘qitish metodikasi” ta’lim yo‘nalishlari va 5A130202 - “Amaliy matematika va axborot texnologiyalari” mutaxasissisligi talabalariga “Veb dizayn”, “PHP veb dasturlash tili”, “Dasturlash tillari”, “Dasturlash asoslari” va “Yuqori bosqichli algoritmik tillar” fanlarini o‘tishga, hamda qo‘llanmadan PHP7 tilida dasturlash ko‘nikmalariga ilgaridan ega bo‘lmagan turli sohada faoliyat yuritayotgan tadqiqotchilar ham foydalanishlari mumkin. Qo‘llanmada hozirgi kunda dunyoda keng miqyosida qo‘llanilayotgan PHP7 dasturlash tili ommabop tarzda bayon qilingan, unda foydali maslahatlar, ko‘plab misol va masalalar, hamda ularning PHP7 tilidagi dasturlari keltirilgan. O‘quv qo‘llanma nafaqat yuqorida ta’kidlangan ta’lim yo‘nalishlari va mutaxassislik talabalari, balki o‘z faoliyatlari doirasida PHP7 tilidan foydalanuvchi tadqiqotchilar hamda tilni mustaqil o‘rganuvchilar uchun foydali manba vazifasini o‘taydi.

Широкое применение информационно – коммуникационных технологий в Республике Узбекистан требует подготовки высококвалифицированных программистов. Подготовленное с этой целью данное учебное пособие предназначено для студентов образовательных направлений образования 5330220 – «Информатика и информационные технологии»(программное обеспечение) по проведенаю предмета «Веб программирование», а также данное учебное пособие является полезным источником для студентов по направлениям образование 5130200 – «Прикладная математика и информатика», 5110700 – «Методика обучения информатике» и специальности 5A130202 – «Прикладная математика и информационные технологии» по предметам «Веб дизайн», «Язык веб программирования PHP», «Языки программирования», «Основы программирования» и «Алгоритмические языка высокого уровня». Также данное учебное пособие будет полезным для исследователей разных отраслей не имеющих навыков программирования. В учебном пособие популярно изложен язык программирования PHP 7, который широко применяется во всём мире. В пособии даны полезные советы, многочисленные примеры и задачи с кодами для них на языке PHP 7. Также пособие станет полезным источником для исследователей использующих в сфере своей деятельности язык PHP 7 и для самостоятельно изучающих данный язык программирования.

The widespread use of information and communication technologies in the Republic of Uzbekistan requires the training of highly qualified programmers. Prepared for this purpose, this tutorial is intended for students in educational areas of education 5330220 - "Informatics and Information Technologies" (software) on the subject "Web programming", and this tutorial is a useful source for students in the areas of education 5130200 - "Applied mathematics and computer science ", 5110700 -" Methods of teaching computer science "and specialty 5A130202 -" Applied mathematics and information technology "in the subjects" Web design "," PHP web programming language "," Programming languages "," Programming basics "and" Algorithmic languages high level". Also, this tutorial will be useful for researchers from different industries who do not have programming skills. The tutorial popularly describes the PHP 7 programming language, which is widely used throughout the world. The manual contains useful tips, numerous examples and tasks with codes for them in PHP 7. Also, the manual will become a useful source for researchers using PHP 7 in their field and for those who independently study this programming language.

KIRISH

O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev 2019 yil 3 aprel kuni yoshlar ta’lim-tarbiyasi uchun qo‘shimcha sharoitlar yaratish, xotin – qizlar bandligini oshirishga qaratilgan kompleks chora – tadbirlarni o‘z ichiga olgan 5 ta tashabbusni amaliyotga joriy etish masalalari bo‘yicha yig‘ilish o‘tkazdi. Yig‘ilishda aholining kompyuter savodxonligini oshirish, axborot texnologiyalariga qiziqqan yoshlarni to‘g‘ri yo‘naltirish, ularni malakali mutaxassis darajasiga olib chiqish, dasturiy mahsulotlar yaratish bo‘yicha ko‘rsatmalar berildi.

O‘zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev tomonidan 2019 yil yanvar oyida ilgari surilgan beshta tashabbusidan uchinchi tashabbusida aholi va yoshlar o‘rtasida kompyuter texnologiyalari va internetdan samarali foydalanish chora – tadbirlariga oid dasturi doirasida 2019 – 2020 yillarda tuman va shaharlarda raqamli texnologiyalar o‘quv markazi tashkil etish va ularda bepul ta’lim berish, 19 mingga yaqin ijtimoiy soha ob’ektini yuqori tezlikdagi internet tarmog‘iga ulash ko‘zda tutilmoqda.

Prezidentimiz Shavkat Mirziyoyev rahbarligida 2019 yilning 19 mart kuni bo‘lib o‘tgan Yoshlar bilan ishlashni samarali tashkil etishda madaniyat, san’at, sport, axborot texnologiyalari, kitob o‘qishga qiziqishini oshirish bo‘yicha 5 ta muhim tashabbusni amalga oshirish to‘g‘risidagi videoselektorda respublika viloyatlarining barcha shahar va tumanlarida “Raqamli texnologiyalar o‘quv markazlari”ni tashkil etish belgilab berilgan.

2019 yilning 21-noyabr kuni Toshkent shahridagi Inha universitetida “Bir Million O‘zbek Dasturchilar” deb nomlangan loyiha ishga tushurildi. Yuqorida Prezidentimiz Shavkat Mirziyoyev tomonidan qo‘yilgan masalalarni muvaffaqiyatli amalga oshirish uchun zamonaviy o‘quv adabiyotlar bazasini yaratish talab etiladi. Bu o‘z navbatida veb – sahifalar yaratish istagida bo‘lgan yosh dasturchilar uchun o‘zbek tilida nashr etilgan o‘quv adabiyotlariga bo‘lgan ehtiyojni yanada kuchaytiradi.

Respublikamiz oliy ta’lim nuassasalarida fizika-matematika fanlari doktori, professor M. Aripov rahbarligida, S. Dottoev, M. Fayziyevalar bilan hammualliflikda 2013 yilda nashr etilgan “Veb texnologiyalar” nomli o‘quv qo‘llanma keng miqyosda foydalanib kelinmoqda. Ushbu qo‘llanmada PHP tilining beshinchi versiyasigacha bo‘lgan ma’lumotlar to‘liq yoritilgan. Ushbu o‘quv qo‘llanma atigi 500 nusxada chop etilgan bo‘lib, u bugungi kunda tilni o‘rganuvchilar ehtiyojini to‘liq qanoatlantira olmaydi. Bundan tashqari PHP tili doimiy rivojlanish bosqichini boshdan kechirib, uning yangi oltinchi va ettinchi versiyalari tobora keng qo‘llanilmoqda. Shu sababli, yuqorida keltirilgan o‘quv qo‘llanmaning mantiqiy davomi bo‘lgan PHP tilining so‘ngi versiyalarini o‘z ichiga olgan yangi o‘quv qo‘llanma yaratish muhim ahamiyatga ega bo‘lmoqda.

PHP7 veb – dasturlash tili bo‘yicha o‘zbek tilidagi adabiyotlar etarli darajada emasligi, ko‘pgina foydalanuvchilarning ushbu tilda dastur tuzishlariga to‘sqinlik

qilmoqda. Shu sababli, keng doiradagi foydalanuvchilarga mo‘ljallangan, tushunarli tilda yozilgan o‘quv qo‘llanmalarga bo‘lgan ehtiyoj kundan-kunga ortib bormoqda.

Ushbu o‘quv qo‘llanma Termiz davlat universiteti “Amaliy matematika va informatika”, “Informatika o‘qitish metodikasi” ta’lim yo‘nalishlari, hamda “Amaliy matematika va axborot texnologiyalari” mutaxasisissligi talabalariga “Veb dizayn”, “PHP veb dasturlash tili”, “Dasturlash tillari”, “Dasturlash asoslari” va “Yuqori bosqichli algoritmik tillar” fanilarida “PHP7 veb dasturlash tili” ni o‘tishga mo‘ljallab yozilgan bo‘lib, unda ko‘pgina amaliy xarakterga ega bo‘lgan – dasturiy kodlar va misollarning PHP7 tilida tugallangan dasturlari keltirilgan. O‘quv qo‘llanma uni o‘zlashtirish uchun maxsus bilimlarni talab qilmaydigan ketma – ketlikda bayon qilingan, bunda asosiy va yagona talab bu HTML bilan tanish bo‘lishdan iborat.

Zamonaviy PHP7 – juda moslashuvchan til bo‘lib, unda ixtiyoriy murakkablik Facebook, Vkontakte, Badoo, Wikipedia da veb – ilovalar yaratish mumkin, ularning barchasida PHP7 dan foydalanadilar. PHP7 tilining samaradorligi PHP ning ilgarigi 5 va 6 versiyalariga nisbatan ikki marta oshdi. Hozirda PHP7 tili o‘zining jadal rivojlanish va yaxshilanish bosqichini kechirmoqda, u ish beruvchilar uchun eng ehtiyojmand til bo‘lib qolmoqda. Bundan tashqari, ushbu tilning yirik hamjamiyati va sifatli maxsus xujjatlari to‘plami mavjud bo‘lib, ular ko‘pgina tillarga tarjima qilingan. PHP7 tilida dasturlovchilar ixtiyorida Composer va Packagist menedjer paketlari mavjud bo‘lib, ularda 120 mingdan ortiq paketlar joylashgan. 2018 yilning noyabr oyida ushbu to‘plamdan 502 million paketlar o‘rnatmasi ishlab chiqilgan.

PHP7 o‘z - o‘zidan ishlamaydi. Foydalanuvchi bilan ishlash uchun PHP veb – serverga o‘rnatilgan bo‘lishi lozim, masalan, Nginx yoki Apache orqali. Foydalanuvchi o‘z so‘rovini veb – serverga HTTP protokoli bo‘yicha jo‘natadi. Veb – server faylning qaysi tiliga murojaat qilinganligini aniqlaydi va ushbu fayl .php kengaytmaga ega bo‘lsa, u holda veb – server so‘rovni qayta ishlash uchun PHP tili interpretatoriga jo‘natadi, so‘rov bajariladi, u bayt – kodga aylantiriladi va natija veb – serverga qaytariladi. Veb – server shakllantirilgan natijani foydalanuvchiga uzatadi. Ushbu natija, qoida bo‘yicha dinamik generatsiya qilingan HTML – sahifadan iborat bo‘ladi.

Mazkur o‘quv qo‘llanma oltita bobdan iborat bo‘lib:

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- VI. BOB. PHP7 DA MATNLAR BILAN ISHLASH

Har bir bob yakunida 20 tadan misol va masalalarning PHP7 tilidagi dasturlari keltirilgan hamda talabalar mustaqil ishlashlari uchun 20 tadan topshiriqlar berilgan.

I. BOB. PHP7 TILI VA UNING DASTURLASH MUHITI

1.1 PHP7 TILI TARIXI

Bugungi kunda maksimal darajada foydalanuvchilarni o‘ziga jalb etadigan zamonaviy veb-saytlarning ahamiyati katta bo‘lib, ularni yaratish jarayoni o‘ziga xos yondashuvni talab etadi. Internet uchun dasturlashda o’zining munosib o‘rniga ega bo‘lgan vebga yo‘naltirilgan dasturlash tillariga PHP7 tili yorqin misol bo‘la oladi.

PHP nima?

PHP- keng miqyosda qo‘llaniladigan universal stsenariy tili bo‘lib, u ayniqsa veb-ishlanmalarga mo‘ljallangan va HTML –kodda taqbiq etilishi mumkin. Ushbu til dasturchi Rasmus Lerdorf tomonidan shaxsiy veb saytini qo‘llab-quvvatlash maqsadida stenariylar to‘plami ko‘rinishida yaratilgan. Bu tilning birinchi 'Personal Home Page Tools' (PHP Tools) deb atadigan 1.0 versiyasi 1995 yil 8 iyunda e’lon qilingan. Tilning uskunalar to‘plami 1997 yilda PHP 2.0 versiyasi chiqishi bilan yanada kengaytirildi, C-realizatsiyali ikkinchi versiyasi, butun dunyo bo‘yicha bir necha ming muxlislarga ega hamda, taxminan 50000 ta domenga o‘rnatilgan bo‘lib bu barcha Internet domenlarning 1% tashkil qilar edi. Ko‘p foydalanuvchilar bu loyiha uchun o‘zlarining kod bloklarini taklif qilganlari uchun, u bir kishining loyihasi bo‘lmay qoldi. PHP 2.0 rasmiy ravishda 1997 yil noyabrida chiqarildi. Ungacha u asosan beta-relizlar shaklida mavjud edi. Shundan so‘ng ko‘p o‘tmasdan birinchi alpha PHP 3.0 paydo bo‘ldi.

1998 yilda tilning yana qayta ishlangan PHP 3.0 varianti bugungi PHP ga o‘xshagan birinchi versiyasi paydo bo‘ldi. Andi Gutmans va Zeev Suraski PHP 2.0 tilini o‘zlarining eCommerce-ilovalarini yaratish uchun etarli imkoniyatga ega emas deb topib, uni 1997 yilda to‘la qaytadan yozilgan til sifatida yaratdilar. O‘zaro hamkorlikda, Andi Gutmans, Rasmus Lerdorf va Zeev Suraski PHP 3.0 ni PHP 2.0 tilining rasmiy vorisi sifatida yaratdilar va e’lon qildilar. Natijada PHP 2.0 tilining rivojlanishi to‘xtadi.

PHP 3.0 tilining eng kuchli tomonlaridan biri uni kengaytirish imkoni mavjudligida edi. PHP 3.0 tili foydalanuvchilar uchun har xil ma’lumotlar bazalari, protokol va API larning mustahkam infrastrukturasi, hamda kengaytirish imkoniyatini yaratgani uchun, o‘nlab foydalanuvchilarni yangi kengaygan modullar yaratishga undar edi. Balki, PHP 3.0 ning o‘ta mashxurligi sababi ham ana shundadir. PHP 3.0 ning asosiy xusuiyatlaridan biri ob’ektga yo‘naltirilgan sintaksisdan iboratligidir. PHP 3.0 rasmiy ravishda 1998 yil iyun oyida 9 oylik oshkora testlashdan so‘ng chiqarilgan edi.

1998 yil oxiriga kelib PHP o‘n minglab foydalanuvchilar va yuz minglab Veb-saytlar uchun asos qilib olindi. Eng mashxur bo‘lgan paytida PHP 3.0 Internet Veb-serverlarining taxminan 10% ga o‘rnatilgan edi. 1998 yilning qishida PHP 3.0 rasmiy e’lon qilingandan so‘ng, Andi Gutmans va Zeev Suraski katta amaliy dasturlar bilan ishlashda unumdorligini va PHP kodli bazasi modulligini oshirish maqsadida PHP yadrosini qayta ishlashga kirishdilar. PHP 3.0 da amaliy dasturlar yaratish mumkin, lekin unda murakkab kompleksli amaliy dasturlarga xizmat qilish ko‘zda tutilmagan edi.

Tilning keyingi PHP 4.0 versiyasi 2000 yilda chiqarilib, unda ish unumdorligi, ishonchlilik va keng qamrovliligi yangi 'Zend Engine' (yaratuvchilar nomlari asosida - Zeev va Andi), yadrodan foydalanish evaziga oshirildi. Ancha oshgan unumdorlikdan tashqari, ushbu versiyada PHP 4.0 quyidagi imkoniyatlarga ega bo‘ldi: katta sondagi veb-serverlar, HTTP-sessiyalarni qo‘llash, chiqarishni buferlash, foydalanuvchi o‘zining PHP kodini kiritishi bilan xavfsiz ishlash usullari va tilning turli yangi konstruktsiyalaridan foydalanish.

Tilning PHP 5.0 versiyasi 2004 yilda yaratildi va PHP ni yaratuvchi guruhlarning erkin dasturiy ta’minotini yo‘lga qo‘ydi. Bunda asosiy e’tibor Zend yadroni yangilashga ya’ni (Zend Engine 2) ni yaratishga qaratildi.

PHP 6.0 tilining rejalashtirilayotgan eksperimental versiyasida asosan yunikodni qo‘llab-quvvatlashni tadbiq etish ko‘zda tutilgan edi va bu istiqbolsiz deb topildi. PHP7.0 ning joriy versiyasi 2015 yilda chiqarildi va yadroning oxirgi versiyasi Zend Engine 3 ga asoslangan bo‘lib, u yuqori ish unumdorligini ta’minladi.

PHP tilining oxirgi versiyalarining samaradorligi PHP5 va PHP6 larga nisbatan qariyib 2 marta ortdi, hozirda PHP7 tili jadal rivojlanish va yaxshilanish bosqichini o‘tayapti. Bundan tashqari, tilda juda yirik hamkorlik va sifatli rasmiy hujjatlar mavjud bo‘lib, ular juda ko‘p tillarga tarjima qilingan, jumladan rus tiliga ham. Tilni yaratuvchilar ixtiyorida Composir paketlar menedjiri va repazitoriy Paskagist paketlari to‘plami mavjud bo‘lib, ular 120 dan ortiq paketlarni o‘z ichiga oladi. 2018 yil noyabrda ushbu repozitoriydan 502 millionta paketlar o‘rnatmasi ishlab chiqilgan.

Xozirgi kunda PHP tilidan yuz minglab dasturchilar foydalanadi, u 20 milliondan ortiqroq veb saytlar va 1 milliondan ortiq veb serverlarga o‘rnatilgan.

PHP tilini qulay va funktsional til deb atab bo‘lmaydi, uni dasturchilarning sevimli tili toifasiga ham kiritib bo‘lmaydi, ammo, PHP tilining bitta muhim jihati mavjudki, bu til haqidagi barcha salbiy e’tirozlardan ustun turadi. Shu sababli, PHP tilini tanlash maqsadga muvofiq. Ushbu muhim jihat quyidagidan iborat: WordPress blok-platformasidagi saytlarning internetdagi salmog’i juda katta bo‘lib, WordPress faqat PHP uchun xizmat qiladi. Agarda keltirilgan fakt ham yetarli emas deb hisoblansa, PHP tilining muhimligi haqida boshqa bir faktni keltiramiz. Eng yirik va o‘ta taniqli saytlar o‘z faoliyatini aynan PHP da boshlagan, bunga misol tariqasida FaceBook ni va ommabop dasturlash tili TIOBE ni eslatib o‘tish kifoya. TOP-5 ga eng mashhur dasturlash tillari sifatida quyidagi beshta til kiritilgan: Java, C, C++, Python va Visual Basic.NET. O‘tgan yilda ham yetakchi tillar beshligi deyarli o‘zgarmasdan qoldi, faqatgina Visual Basic.NET o‘rnini C# tili egalladi. 2017 yilda yetakchi tillar beshligini JavaScript yakunlagan bo‘lsa, 2018 yilda PHP egalladi. 2019 yilda PHP7 da ish samaradorligi ikki-uch marta ortdi. PHP tili ekotizimining hozirgi holatini baholashda PHP uchun asosiy paketlar majmuasi – Packagist ni qarash yetarli, u eksponensial ravishda o‘smoqda. Ushbu paketlarning kuniga 25 milliontagacha yuklab oliniyotganligi, PHP tilining ekotizim ekanligidan dalolat beradi. PHP7 tilida ishonchli, yaxshi xizmat ko‘rsatuvchi va sifatli dasturiy ta’minot yaratish mumkin.

Hozirda information bozorda turli ishlab chiqaruvchilarning bir nechta yechimlari (saytlari) mavjud:

Apache server (sayt - apache.org) – bu tarmoqda eng keng tarqalgan va ommabop bepul foydalaniladigan serverdir. U o‘ta ishonchli va moslashuvchan bo‘lib, prosessor resurslariga qat’iy talab qo‘ymaydi va ko‘plab saytlarga xizmat qilish qobiliyatiga ega. Ushbu saytning ilovalari keng spektrdagi operatsion tizimlar uchun yaroqli, ularga misol tariqasida Unix, Linux, Solaris, Mac OS X, Micrasoft Windows va boshqalarni ko‘rsatish mumkin.Hozirda Apachedan foydalanish ko‘rsatkichi 71% ni tashkil etadi. Ammo, Apache o‘ta murakkab dastur bo‘lib, undan har bir foydalanuvchi erkin foydalanish imkoniyatiga ega emas.

Denver server (sayt – denwer.ru) saytlar, veb – ilovalar yoki Internet sahifalar bilan ishlashga mo‘ljallangan bepul foydalanadigan serverdir. Ushbu mahsulot soddalashtirilgan ishlash uchun zaruriy distributivlarga ega. Masalan, unga veb – server Apache, berilganlar bazasi va boshqa dasturlar bilan ishlashga mo‘ljallangan PhpMyAdmin va MySql paketlar kiradi. Afsuski, Denver server faqat Windows operatsion sistemasida ishlaydi.

XAMPP server (sayt – www.apachefriends.org/en/xampp.html) – Apachening do‘stlari tomonidan to‘plangan serverlarning maxsus jamlanmasidan iborat. Zaruriy distributivlarning mavjudligi to‘laqonli veb serverni ishga tushirishni ta’minlaydi. Ushbu dastur Windows, Solarif, Mac OC X va Linux tizimlarida ishlaydi. Unda quyidagi afzalliklar mavjud: server foydalanuvchilar uchun sodda interfeysga egaligi bilan mashhur va ko‘pgina dasturchilarning sevimli serveriga aylangan, uning yaratilgan versiyalari tez-tez paydo bo‘ladi, yangilash jarayoni foydalanuvchi uchun sodda va qo‘lay tarzda amalga oshiriladi, qo‘shimcha modullari ham mavjud.

AppServ serveri (sayt – www.appservnetwork.com) – juda yaxshi server bo‘lib, uni osongina o‘rnatish va barcha distributivlarini bir daqiqa ichida ishchi holatga keltirish mumkin. Ushbu serverning birinchi qo‘llanilishi 2001 yilga to‘g‘ri keladi va shundan keyin undan foydalanuvchilar soni har doim ortib bormoqda. AppServning o‘rnatilishi oson, u ayrim va maxsus relizlarga nisbatan turg‘un (stabil) holatda ishlaydi, hamda uning ishonchli ish samaradorligi foydalanuvchi kompyuterida to‘laqonli veb server yaratish imkoniyatini beradi.

VertigoServ serveri (sayt – www.vertrigo.sourceforge.net) – yana bir unchalik yomon bo‘lmagan va local serverga sodda o‘rnatiladigan serverdir. Serverni yig‘ish o‘ta nozik ish bo‘lib, uning ish samaradorligi yaxshi va diskda kam joy egallaydi. Afsuski, u hozircha faqatgina Windows OS da ishlaydi.

Zend Server Community Edition serveri (sayt – www.zend.com) – bu Zend kompaniyasidan bepul server bo‘lib, u veb – ilovalar bilan ishlashga mo‘ljallangan. Foydalanuvchi kompyuterida local serverni tez ishga tushirish uchun barcha zaruriy elementlarga ega.

OpenServer serveri (sayt – www.open-server.ru) bu portative local server bo‘lib, u saytlarni hamda boshqa veb loyihalarni ishlab chiqish va yaratish uchun yuqori funktsionallikka ega. U ko‘p tilli interfeysga ega (jumladan, rus tilida ham) va windows OS da ishlashga mo‘ljallangan. Olinuvchi informatsiya bilan uni tashuvchilar o‘rtasida muloqot o‘rnatilgan. Bu server juda ham yaxshi va Denver serverga muqobil bo‘lgan yomon bovlmagan server.

WampServer server (sayt – www.wampserver.com) – bu ruscha interfeysga (xuddi shuningdek, boshqa tillarga) mo‘ljallangan server. U sodda va tushunarli

menyuga ega, hamda qulay o‘rnatiladi va uni ishchi holatga keltirish deyarli qiyinchiliklar tug‘dirmaydi. Serverni ishchi holatga keltirishni konfiguratsiya fayllariga ta’sir ko‘rsatmasdan amalga oshirish mumkin. Bu o‘z navbatida ishni endi boshlayotgan veb – ustalar uchun juda foydalidir. Server bepul tarqatiladi va faqat windows platformasida ishlaydi. Afsuski, uning portativ versiyasi mavjud emas.

EasyPHP serveri (sayt – www.easyphp.org) – bu ruscha interfeysga ega bo‘lmagan yaxshi jamlanma. Uni jamlash oson, yirik funktsionalga ega emas va asosan unchalik yirik bo‘lmagan loyihalarni testlashtirishga mo‘ljallangan. Unda olinuvchi portativ ma’lumot tashuvchilar bilan ish ko‘rish mumkin. Ushbu server Denver serverga muqobil server bo‘lib, xizmat qiladi.

Shunday qilib, yuqorida ko‘rib o‘tilgan eng mashhur veb – serverlar bo‘lib, ular veb ustalar orasida alohida e’tiborga ega. Ko‘rinib turibdiki, bunda tanlash imkoniyati mavjud. Foydalanuvchi o‘ziga yoqqan serverni yuklab olish va jamlanma tarkibini maxsus saytlardan bilishi mumkin. Server jamlanmasi ma’lumotlarini faqat maxsus saytlardan olish tavsiya etiladi, chunki boshqa maydonlarda ishlamaydigan distributivlar yoki biror – bir viruslar bo‘lishi mumkin.

Php ning mashhurligi nimada?

- PHP tili dastlab foydalanuvchilar uchun sodda va tushunarli bo‘lishidan qat’iy nazar, tajribali dasturchilarga ko‘pgina qo‘shimcha imkoniyatlarni taklif etadi.
- PHP – kod maxsus boshlang‘ich va oxirgi teglardan iborat bo‘lib, ular “PHP rejimiga” kirish/chiqishga imkon beradi, bular o‘z navbatida HTML – hujjatlar ichida ko‘rsatmalarni bajarishni ta’minlaydi.
- PHP – kod veb – serverda amalga oshadi (ya’ni server tomonidan), bundan farqli ravishda JavaScript-kodda esa ishga tushirilayotgan brauzer (ya’ni, mijoz) tomonidan amalga oshiriladi. Mijoz stsenariyning amalga oshishi natijasini oladi, bunda mijoz qanday boshlang‘ich koddan foydalanganilganligini bilmaydi. So‘nggi yillarda server tomonidan amalga oshiriladigan qayta ishlash vaqti “bulut” deb atala boshladi.

Bulut nima?

> Har doim, foydalanuvchi brauzerdagi veb – saytga o‘tishida, u veb – serverdan veb – sahifani so‘raydi va uning javobini HTTP protokoli (qaydnomasi) bo‘yicha qabul qiladi. Agar veb – sahifa PHP – stsenariysiga ega bo‘lsa, veb – server dastlab PHP – harakatga kod javobini veb – brauzerga uzatishdan avval qayta ishlash uchun murojaat qiladi.

Quyidagi maslahatni (tavsiyani) keltirib o‘tamiz HTTP (Hypertext Transfer Protocol – giperteksni uzatish protokoli) universal kommunikatsion stardart bo‘lib, u ixtiyoriy kompyuterning ixtiyoriy veb – serverdan internet orqali o‘z fayliga kirish imkoniyatini beradi.

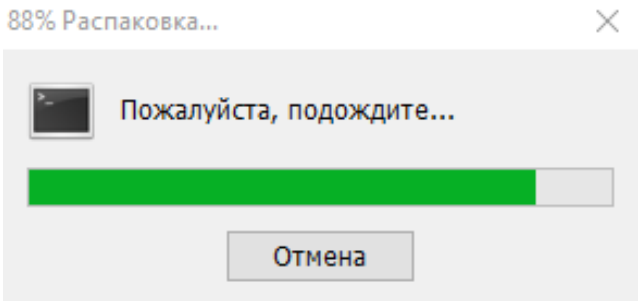


Keyingi sahifalar interaktiv veb – saytlarni yaratish muhitini qanday tayyorlashni, o‘z shaxsiy kompyuterida quyidagi server texnologiyalarini o‘rnatish yo‘li bilan amalga oshirishni ta’minlaydi:

- Veb – server – OpenServer (open_server_5_2_3_premium yoki open_server_5_2_2_ultimate bepul).
- PHP – harakat –PHP7.0.

1.2. OPENSERVERNI O‘RNATISH QOIDALARI

OpenServer kichik xajmli erkin tarqatiluvchi Windows OS uchun mo‘ljallangan Veb-serverdir. Uni yuklab olish uchun https://ospanel.io/ manziliga kirish kerak. Dasturni o‘rnatish uchun faylni arxivdan chiqarish etarli bo‘ladi (1-rasm). Bunga javoban ekranga chiqarilgan o‘rnatish oynasi ishi tugallanib avtomatik yopiladi.

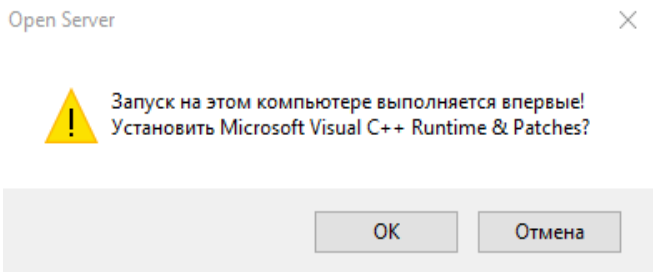


1-Rasm

So‘ngra dasturni o‘rnatib uni sozlash bosqichiga o‘tiladi. Buning uchun dasturiy ta’minot joylashtirilgan katalog C:\OpenServer ga o‘tiladi. Bu katalog ichida quyidagi yuklovchi fayl va uchta ichki katalog joylashgan:

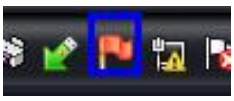
- Domains – Foydalanuvchi saytlarni saqlash uchun mo‘ljallangan katalog.
- Modules – Katalogida modullarning boshqaruvchi fayllari, ularning ishlashi uchun zarur bo‘lgan kutubxona fayllari va qo‘shimcha fayllar joylashgan.
- Userdata – Foydalanuvchilarning berilgan bazalari, xesh fayllari xamda modul konfiguradsiyasi fayllari saqlanadi.

Windows OS turiga qarab .exe – fayllardan birini ishga tushiramiz, masalan OpenServer86.exe va quyidagi ko‘rinishdagi muloqat oynasi ochiladi (2-rasm).



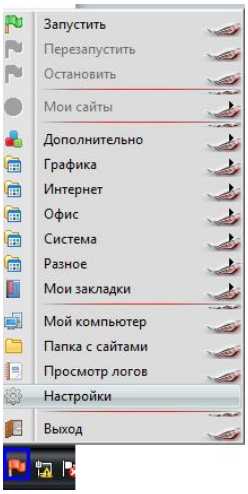
2-Rasm

Buyruqni tasdiqlagandan so‘ng, kompyuter ekrani quyi qismidagi uskunalar panelida, qizil bayroqcha ko‘rinishidagi yorliq paydo bo‘ladi (3-rasm).



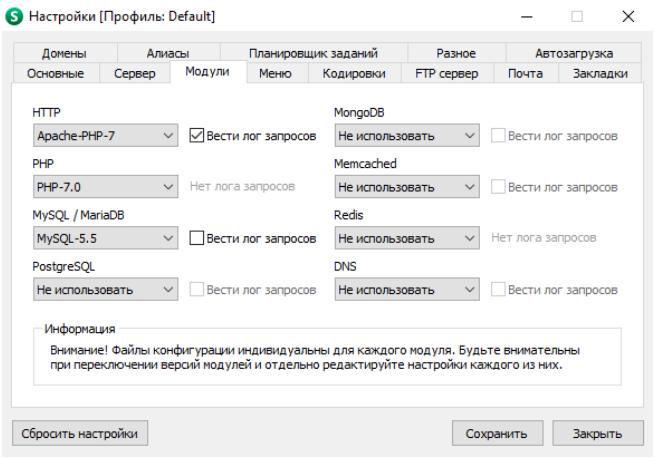
3-Rasm

Ushbu bayroqcha yorlig‘iga sichqoncha o‘ng tugmasini bosilib (Настройка) sozlash bo‘limi tanlanadi (4-rasm).



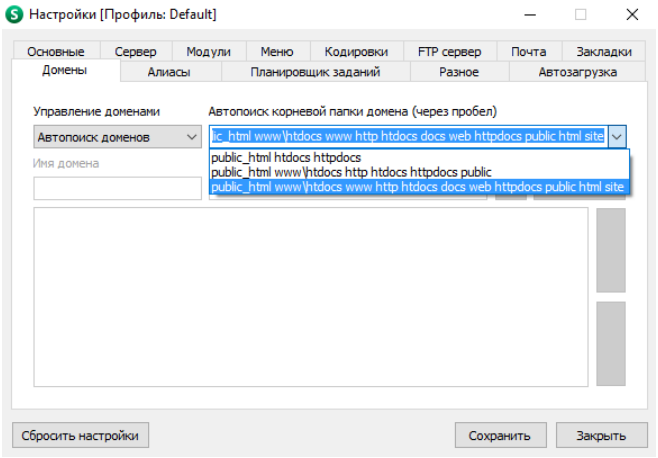
4-Rasm

Dastur bosh oynasi ekranga chiqariladi (5-rasm).



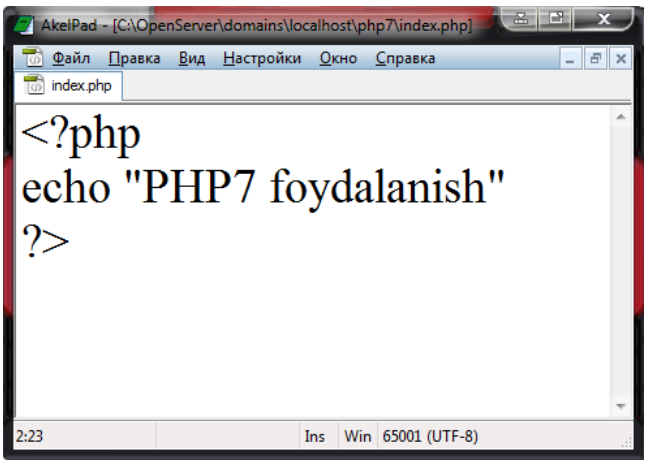
5-Rasm

Oyna “Модули” bo‘limidan PHP7.0 punkti tanlanadi. So‘ngra “Домен” bo‘limiga o‘tilib “Автопоиск доменов” punkti belgilanadi (6-rasm).



6-Rasm

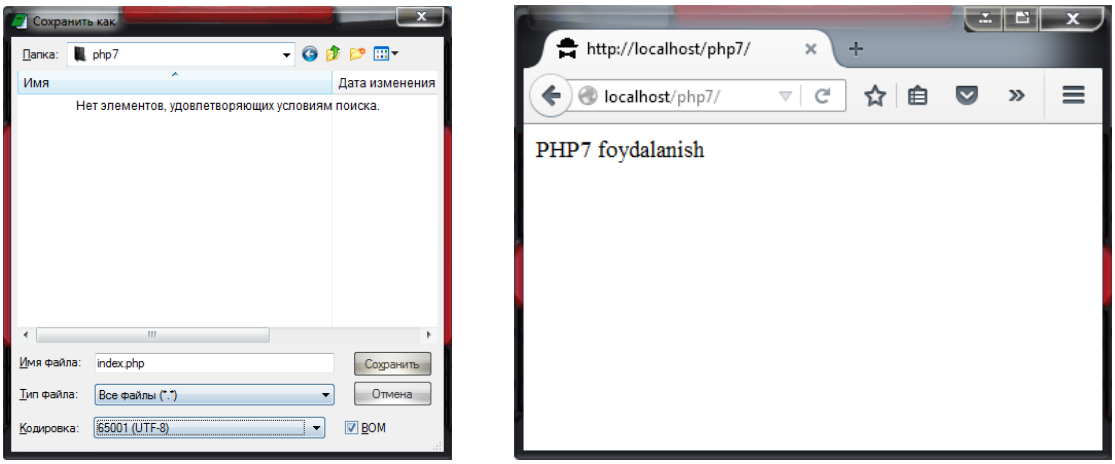
Oxirida “Сохранить” saqlash tugmasi bosilib sozlashlar oynasini yopamiz.



7-rasm

Faylni OpenServer/domains/localhost/php7 ichki katalogiga bloknot dasturi vositasida index.php nomi bilan hamda UTF-8 kodirovkasida yaratilgan faylni saqlaymiz (7-rasm) va 8-rasmdagi kabi natijaga ega bo`lamiz.

PHP - sahna HTML – u hujjatda shakllantirilishi mumkin. Bu shuni anglatadiki, PHP ham va HTML – kod ham hech bir muammosiz aynan bitta faylda mavjud bo‘lishi yoki saqlanishi mumkin. Bunda asosiysi tadbiq etilayotgan PHP – kod <?php …?> tegi ichida bo‘lishi va u kodni talqin qilish uchun PHP – harakat tomonidan tanlab olinadi. Odatda, PHP – kod HTML – sahifa asosiy qismida mavjud bo‘lgan ma’lumotlarni beradi, so‘ngra u foydalanuvchining veb – brauzeriga uzatiladi.



8-Rasm

1.3. PHP KODLAR VA O‘ZGARMASLAR

PHP dasturlari ikki usulda bajarilishi mumkin: Veb-server tomonidan stsenariy ilovasi va konsol dasturi sifatida. Bizning asosiy maqsadimiz Veb ilovalarni dasturlashdan iborat bo‘lgani uchun asosan birinchi usulni ko‘ramiz.

PHP odatda Internet bilan bog‘liq dasturlar yaratish uchun ishlatiladi. Lekin PHP dan komanda satrlar interpretatori, asosan *nix tizimlarda foydalanish mumkin. Oxirgisi CORBA va COM interfeyslar hamda PHP-GTK kengaytmasi yordamida

amalga oshirilishi mumkin. Bu xolda quyidagi masalalarni yechish imkoniyati paydo bo‘ladi:

1. Interaktiv komanda qatorlari yordamida ilovalar yaratish;
2. Kross-platformali GUI ilovalarni PHP-GTK bibliotekasi yordamida yaratish;
3. Windows va Linux uchun ba’zi masalalarni avtomatlashtirish

Serverga brouzerning murojjat qilishi yordamida php-stsenariylari bajarilishini ko‘rib chiqamiz. Avval borouzer .php kengaytmali sahifani so‘raydi, so‘ngra Veb-server dasturni PHP server mashinadan o‘tkazadi va natijani html-kod shaklida qaytaradi. Agar standart HTML sahifani olib, kengaytmasini .php ga o‘zgartirilsa va PHP server mashinadan o‘tkazilsa, foydalanuvchiga o‘zgartirmasdan qaytaradi. Bu faylga PHP komandani qo‘shish uchun, PHP komandalarni maxsus teglar ichiga olish kerak. Bu teglarning 4 xil shakli mavjud bo‘lib, ixtiyoriysidan foydalanish mumkin:

XML qayta ishlash instruktsiyasi:

```
<?php
   ...
?>
```

SGML qayta ishlash instruktsiyasi:

```
<?
   ...
?>
```

HTML stsenariylarini qayta ishlash instruktsiyasi:

```
<script language = "php">
   ...
</script>
```

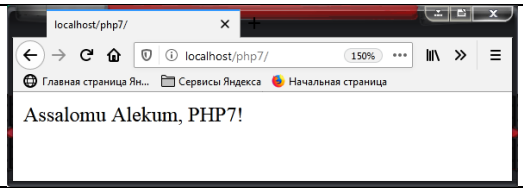
ASP uslubidagi instruktsiya:

```
<%
   ...
%>
```

Biz XML yoki SGML uslubiga rioya qilamiz.

Xususan biror blok ichida PHPdan chiqish mumkin, faqat keyinchalik yana uning ichiga kirib kodni tugatish sharti bilan, quyidagi konstruktsiyadan foydalanish mumkin:

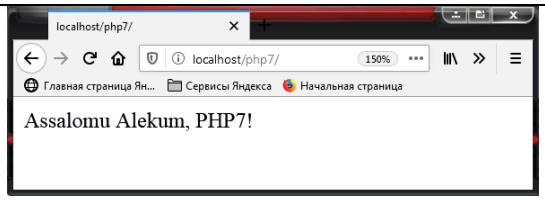
```
<?
echo("<p>Assalomu Alekum, PHP7!<p>");
?>
```



PHP da **echo** buyrug‘i Veb – sahifalarda uchraydigan har qanday ma’lumotni (matn, HTML ajratuvchi simvoli, son) chiqarish uchun qo‘llanadi.

PHP tilida izoxlarni joylash uchun bir necha usullar mavjud. Eng soddasi ikkilik slesh (//) dan foydalanish, shundan so‘ng PHP satrlar oxirigacha yozilganlarni o‘tkazib yuboradi. Bundan tashqari (/*…*/) uslubidagi ko‘p qatorli izoxlardan foydalanish mumkin. Bir qatorli izoxlar uchun (#) simvoldan foydalanish qulay.

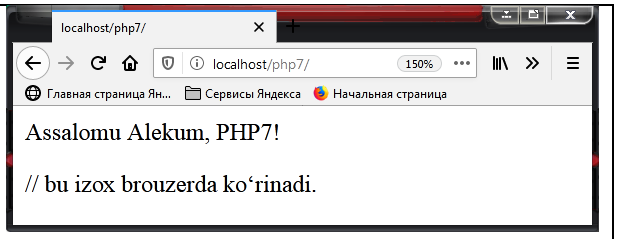
```
<?php
// izox kiritish
/*
bu ham izox kirish
*/
  echo"<p> Assalomu Alekum, PHP7!</p>";
?>
```



Shuni yoddan chiqarmaslik lozimki, PHP uslubi izoxlari faqat PHP chegaranishlari orasida ta’sir qiladi. Agar PHP bu izoxlar simvollarini chegaranishlari tashqarisida uchratsa, ularni boshqa matn sifatida, html- sahifaga joylashtiradi.

Masalan. Bu izox orqali HTML kodda ko‘rinadi, brouzerda emas -->

```
<?php
  echo "<p> Assalomu Alekum, PHP7!
</p>"; // normal izox
?>
// bu izox brouzerda ko‘rinadi.
<!-- HTML izoxi.
```



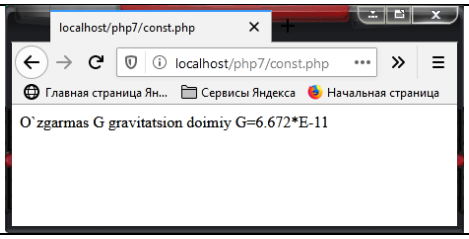
PHP da o‘zgaruvchilarni aniqlash dollar (**$**) belgisidan boshlanadi. Bu simvoldan ixtiyoriy sondagi harf, raqam va ostiga chiziq chizish, hamda o‘z simvollari kelishi mumkin, lekin birinchi simvol albatta harf bo‘lishi kerak. Shuni esda tutish kerakki, PHPda o‘zgaruvchilarning nomlari kalit so‘zlardan farqli registrga bog‘liqdir.

PHP da o‘zgaruvchilarni ta’riflanganda ularning tipini oshkor ko‘rsatish shart emas va dastur davomida bitta o‘zgaruvchi har xil tiplarga ega bo‘lishi mumkin.

O‘zgaruvchi unga qiymat berilganda initsializatsiya qilinadi va dastur bajarilguncha mavjud bo‘ladi, ya’ni toki so‘rov tugamaguncha veb-sahifa xolida saqlanadi. PHP da o‘zgarmaslar **define**() funksiyasi yordamida e’lon qilinadi:

define(o‘zgarmas nomi, qiymati). Bu funksiyaning birinchi parametri – o‘zgarmas nomi, ikkinchisi – uning qiymati. O‘zgarmasdan foydalanilganda nomi bo‘yicha ilova qilinadi:

```
<?
define ('G', '6.672*E-11');
echo "O‘zgarmas G gravitatsion doimiy G=", G;
?>
```



Odatda o‘zgarmaslar nomlari yuqori registr harflari bilan yoziladi.

1.4. PHP DA MA’LUMOTLAR TIPLARI GET VA POST

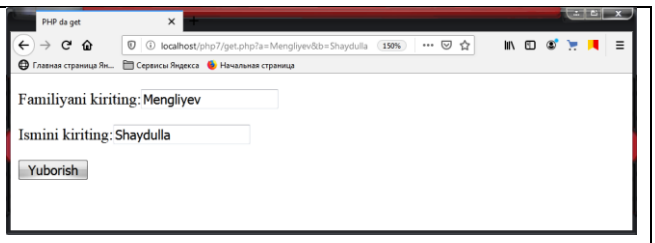
PHP tilida superglobal deb ataluvchi o‘zgaruvchilar ham ishlatiladi. Ular maxsus shakllantirilgan o‘zgaruvchilar bo‘lib, ixtiyoriy sahnada va ixtiyoriy joyda ularga global ravishda murojaat qilish mumkin.

GLOBALS – assotsiativ massiv bo‘lib, u konteksga mos va sahnaning ixtiyoriy sohasida hozirda aniqlangan barcha o‘zgaruvchilarni o‘z ichiga oladi.

SERVER – ushbu massiv, xizmatchi ma’lumotlarni o‘z ichiga oladi, ular sarlavhalar, sahnaga berish va joylashish yo‘li bo‘lib, ular veb server tomonidan yaratiladi. Klient (mijoz) so‘rovi veb-server tomonidan taxlil qilinib, PHP server mashinaga uzatilgandan so‘ng u so‘rovga tegishli ma’lumotlarni o‘z ichiga olgan va bajarish davomida murojaat qilish mumkin bo‘lgan bir necha o‘zgaruvchilarni yaratadi.

GET – o‘zgaruvchilarning assotsiativ massivi bo‘lib, ular URL – parametrlar yordamida sahnaga beriluvchilardan iborat.

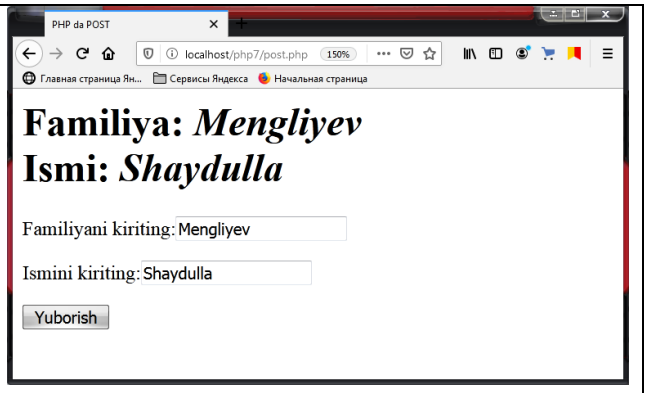
```
<html>
<head>
<meta http-equiv="Content-Type"
content="text/html; charset=utf-8">
<title>PHP da get</title>
</head>
<body>
<form action="get.php" method="get">
<p>Familiyani kiriting:<input name="a"
type="text"</p>
<p>Ismini kiriting:<input name="b"
type="text"></p>
<p><input type="submit"
value="Yuborish"></p>
</form>
</body>
</html>
```



So‘rov satri $QUERY_STRING o‘zgaruvchida saqlanadi va so‘ralgan URL dagi "?" simvoldan keyingi axborotdan iborat. PHP da so‘rov satri & simvollari bo‘yicha alohida elementlarga ajratiladi, va har bir elementda "=" belgisini qidiradi. Agar "=" belgisi topilgan bo‘lsa, tenglik chap tomonidagi simvollardan iborat o‘zgaruvchini yaratadi. Quyidagi formani ko‘ramiz:

POST – o‘zgaruvchilarning assotsiativ massivi bo‘lib, ular sahnaga HTTP protocol orqali post metodi bilan uzatiladi.

```
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Php da POST</title>
</head>
<body>
<?php
$natija_a=$_POST['a'];
$natija_b=$_POST['b'];
echo "<h1>Familiya: $natija_a<br> Ismi: $natija_b</h1>";
?>
<form action="post.php" method="post">
<p>Familiyani kiriting:<input name="a" type="text"</p>
<p>Ismini kiriting:<input name="b" type="text"></p>
<p><input type="submit" value="Yuborish"></p>
</form>
</body>
</html>
```



o‘zgaruvchilarning guruhi yaratilib, interpretatsiya qilinadi va $HTTP_POST_VARS massivga joylashtiriladi.

FILES – elementlarning assostiativ massivi bo‘lib, ular sahnaga HTTP protocol orqali POST metodi bilan yuklanadi.

COOKIE – o‘zgaruvchilarning assotsiativ massivi bo‘lib, ular foydalanuvchi kompyuteriga cookie fayllardan HTTP protokoli orqali sahnaga beriladi.

SESSION – bu assotsiativ massiv bo‘lib, u foydalanuvchi foydalanayotgan vaqtda (vaqt sessiyasida) veb saytdagi har bir sahnaga murojaat qilish imkoniyatini beradi.

REQUEST – assotsiativ massiv bo‘lib, ular ushbu tipdagi o‘zgaruvchining GET va POST larini so‘zsiz o‘zida saqlaydi.

1.5. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLAR

Masala 1. PHP da o‘zingizning “Familiya va Ismingizni” get va post metodi yordamida chiqaring.
Masala 2. PHP da o‘zingizning “**Familiya va Ismingizni**” get va post metodi yordamida qalin ko‘rinishda chiqaring.
Masala 3. PHP da o‘zingizning “*Familiya va Ismingizni*” get va post metodi yordamida kursiv ko‘rinishda chiqaring.
Masala 4. PHP da o‘zingizning “Familiya va Ismingizni” get va post metodi yordamida tagiga chizish orqali chiqaring.
Masala 5. PHP da ushbu gapni “Men PHP dasturlash tilini o‘rganmoqchiman” post metodi yordamida chiqaring.
Masala 6. PHP da ushbu gapni “**Men PHP dasturlash tilini o‘rganmoqchiman**” post metodi yordamida qalin ko‘rinishda chiqaring.
Masala 7. PHP da ushbu gapni “*Men PHP dasturlash tilini o‘rganmoqchiman*” post metodi yordamida kursiv ko‘rinishda chiqaring.
Masala 8. PHP da ushbu gapni “Men PHP dasturlash tilini o‘rganmoqchiman” post metodi yordamida tagiga chizish orqali chiqaring.
Masala 9. PHP da “O’zbekiston kelajagi buyuk davlat!” matnini get va post metodi yordamida chiqaring.
Masala 10. PHP da “*O’zbekiston kelajagi buyuk davlat!*” matnini post metodi yordamida kursiv ko‘rinishda chiqaring.
Masala 11. PHP da “O’zbekiston kelajagi buyuk davlat!” matnini post metodi yordamida tagiga chizish orqali chiqaring.
Masala 12. PHP da “**O’zbekiston kelajagi buyuk davlat!**” matnini post metodi yordamida qalin ko‘rinishda chiqaring.
Masala 13. PHP da O‘zbekinton Respublikasi madhiyasining birinchi to‘rtligini post metodi yordamida chiqaring.
Masala 14. PHP da Respublikamiz madhiyasining ikkinchi to‘rtligini post metodi yordamida chiqaring.
Masala 15. PHP da Respublikamiz madhiyasining uchinchi to‘rtligini post metodi yordamida chiqaring.
Masala 16. PHP da ax+b=0 ifodani kiriting va post metodi yordamida chiqaring.
Masala 17. PHP da *ax+b=0* ifodani kiriting va post metodi yordamida kursiv ko‘rinishda chiqaring.
Masala 18. PHP da ax+b=0 ifodani kiriting va post metodi yordamida tagiga chizish orqali chiqaring.
Masala 19. PHP da ~~ax+b=0~~ ifodani kiriting va post metodi yordamida o‘rtasiga chizish orqali chiqaring.
Masala 20. PHP da **ax+bx+c=0** ifodani kiriting post metodi yordamida qalin ko‘rinishda chiqaring.

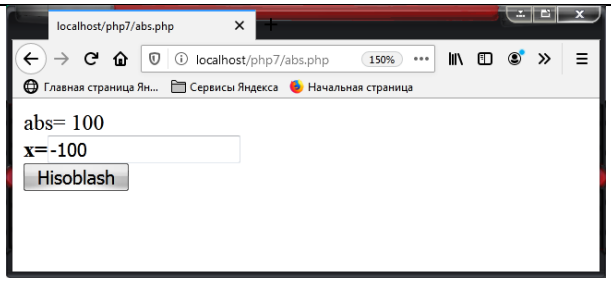
II.BOB. PHP DA OPERATORLAR VA ULAR BILAN ISHLASH

2.1. PHP DA MATEMATIK FUNKSIYALAR

PHP ning matematik funksiyalar kutubxonasi trigonometrik hisoblashlar, sonli shakl almashtirishlar va sonli almashtirishlarni bajaradi. Trigonometrik funksiyalar argumentlari radianlarda beriladi, hamda graduslarni radianga va aksincha almashtiruvchi funksiyalar ham mavjud. Matematik operatorlar bilan bir qatorda PHP da ko‘p sonli matematik funksiyalar ham nazarda tutilgan.
Bular quyidagilar:

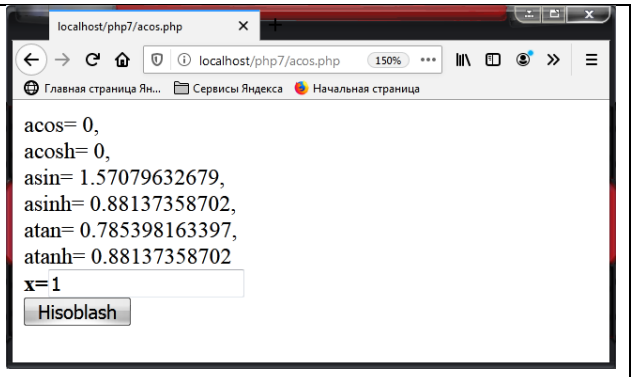
- abs() - sonning absolyut qiymati.

```
<?php
$x=$_POST['x'];
$y=abs($x);
echo "abs= $y";
?>
<form action="abs.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



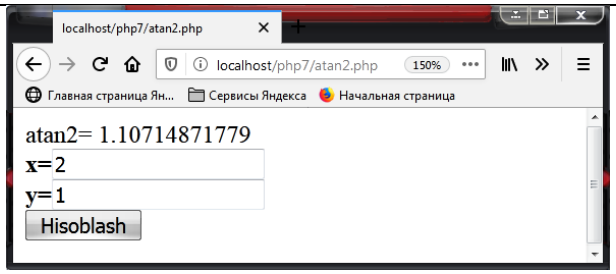
- acos() – radianda ifodalangan arkkosinus.
- acosh() - radianda ifodalangan giperbolik arkkosinus.
- asin() - radianda ifodalangan arksinus.
- asinh() - giperbolik arksinus.
- atan() - radianda ifodalangan arktangis.
- atanh() - giperbolik arktanges.

```
<?php
$x=$_POST['x'];
$y=acos($x);
$y1=acosh($x);
$y2=asin($x);
$y3=asinh($x);
$y4=atan($x);
$y5=atanh($x);
echo "acos= $y, <br> acosh= $y1, <br> asin=
$y2, <br> asinh= $y3, <br> atan= $y4, <br>
atanh= $y3";
?>
<form action="acos.php" method="post" >
<b>x=</b><input name="x" type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



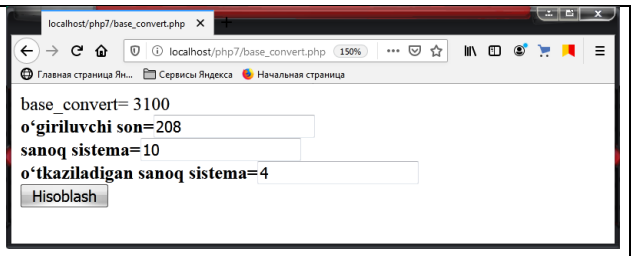
- atan2() - arktangens y/x ni, y va x kvadrantlar ishorasi bilan aniqlanuvchi natijaviy kvadrant bilan qaytariladi.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$atan2=atan2($x,$y);
echo "atan2= $atan2 ";
?>
<form action="atan2.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



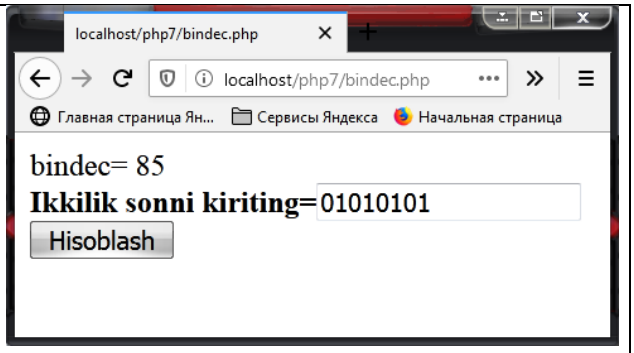
- base_convert() - satr ko‘rinida berilgan sonlarni bir sanoq sistemadan boshqa bir sanoq sistemaga o‘tkazadi. Argument o‘rniga quyidagilar quyiladi o‘giriluvchi son, berilgan sanoq sistema, o‘tkaziladigan sanoq sistema.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$base_convert=base_convert($x,$y,$n);
echo "base_convert= $base_convert ";
?>
<form action="base_convert.php"
method="post" >
<b>o‘giriluvchi son=</b><input
name="x" type="text"><br>
<b>sanoq sistema=</b><input name="y"
type="text"><br>
<b> o‘tkaziladigan sanoq sistema=</b>
<input name="n" type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



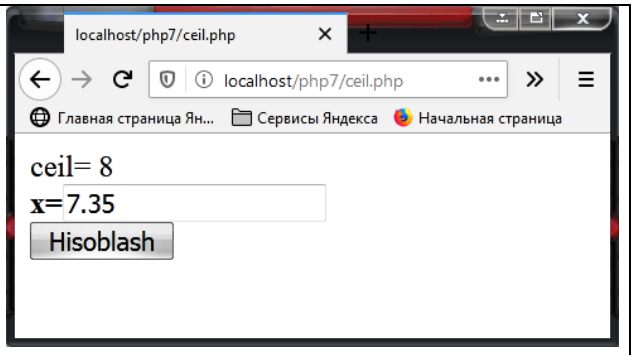
- bindec() - ikkilik sonni ifadalovchi satrni o‘nlik qiymatga o‘tkazadi.

```
<?php
$x=$_POST['x'];
$bindec=bindec($x);
echo "bindec= $bindec";
?>
<form action="bindec.php" method="post"
>
<b>Ikkilik sonni kiriting=</b><input
name="x" type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



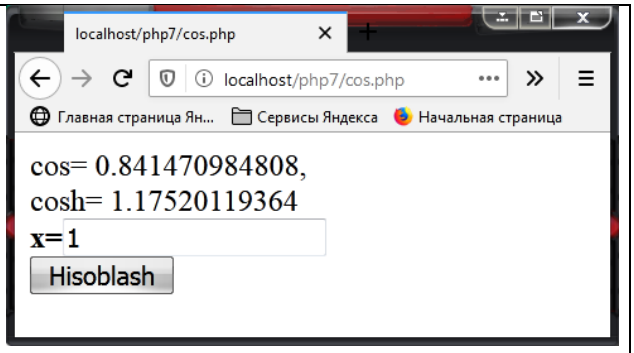
- ceil() - sonni o‘zidan katta butun songa yaxlitlash.

```
<?php
$x=$_POST['x'];
$ceil=ceil($x);
echo "ceil= $ceil";
?>
<form action="ceil.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



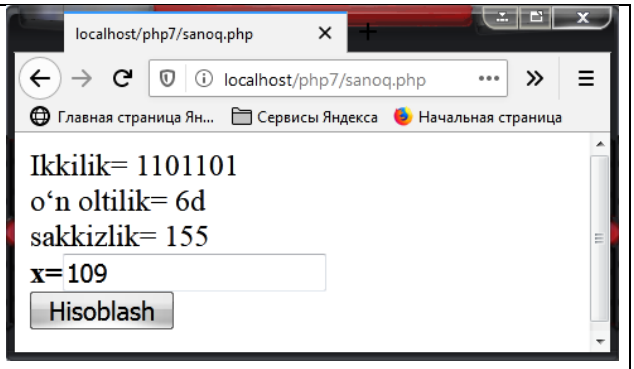
- cos() - radianda ifodalangan kosinus.
- cosh() - giperbolik kosinus.

```
<?php
$x=$_POST['x'];
$y=cos($x);
$y1=cosh($x);
echo "cos= $y, <br> cosh= $y1";
?>
<form action="cos.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



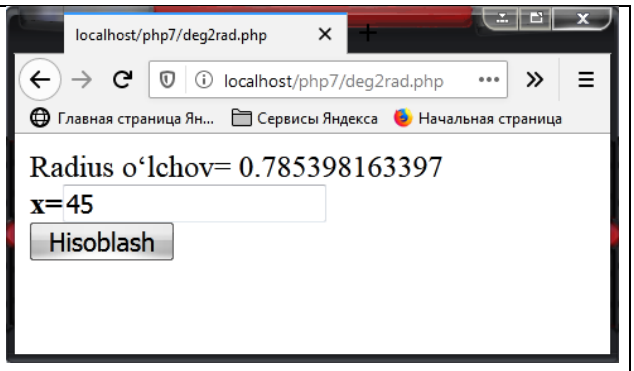
- decbin() - o‘nlik sonni ifadalovchi satrni ikkilik qiymatga o‘girish.
- dechex() - o‘nlik sonni ifadalovchi satrni o‘n oltilik qiymatga o‘girish.
- decoct() - o‘nlik sonni ifadalovchi satrni sakkizlik qiymatga o‘girish.

```
<?php
$x=$_POST['x'];
$y=decbin($x);
$y1=dechex($x);
$y2=decoct($x);
echo "Ikkilik= $y <br> o‘n oltilik= $y1
<br> sakkizlik= $y2";
?>
<form action="sanoq.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



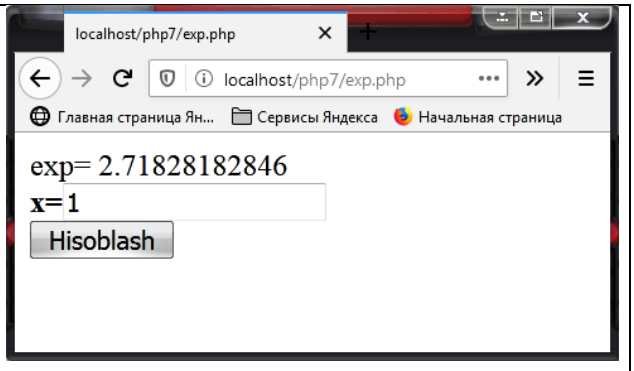
- deg2rad() – gradus o‘lchovidan radian o‘lchoviga o‘tish.

```
<?php
$x=$_POST['x'];
$y=deg2rad($x);
echo "Radius o‘lchov= $y";
?>
<form action="deg2rad.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



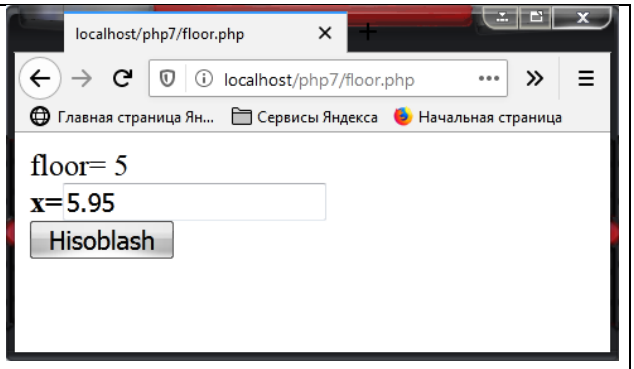
- exp() - berilgan sonning eksponentasini hisoblash.

```
<?php
$x=$_POST['x'];
$y=exp($x);
echo "exp= $y";
?>
<form action="exp.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



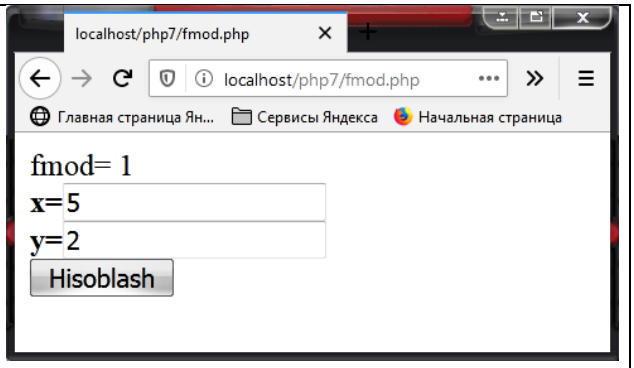
- floor() - sonni o‘zidan kichik butun songa yaxlitlash.

```
<?php
$x=$_POST['x'];
$y=floor($x);
echo "floor= $y";
?>
<form action="floor.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



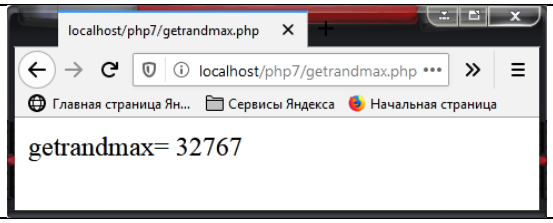
- fmod() -ikki son x ni y ga bo‘lgandagi qoldiqni hisoblaydi.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$natija=fmod($x,$y);
echo "fmod= $natija";
?>
<form action="fmod.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



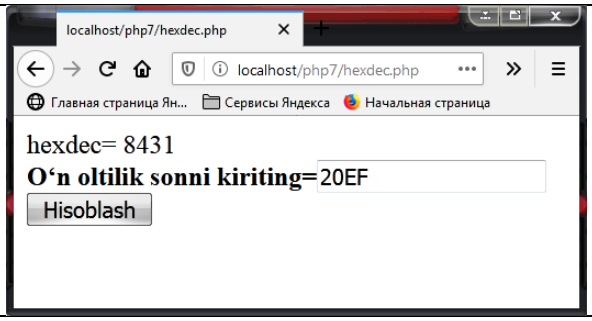
- getrandmax() – rand() funksiya vositasida olish mumkin bo‘lgan maksimal qiymat.

```
<?php
$y=getrandmax();
echo "getrandmax= $y";
?>
```



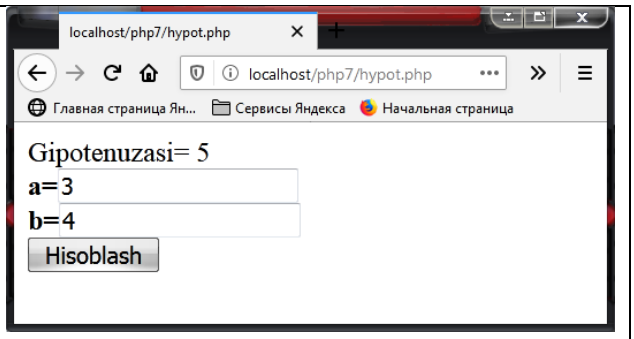
- hexdec() - o‘n oltilik sonni ifadalovchi satrni o‘nlik qiymatga o‘girish.

```
<?php
$x=$_POST['x'];
$hexdec=hexdec($x);
echo "hexdec= $hexdec";
?>
<form action="hexdec.php"
method="post" >
```

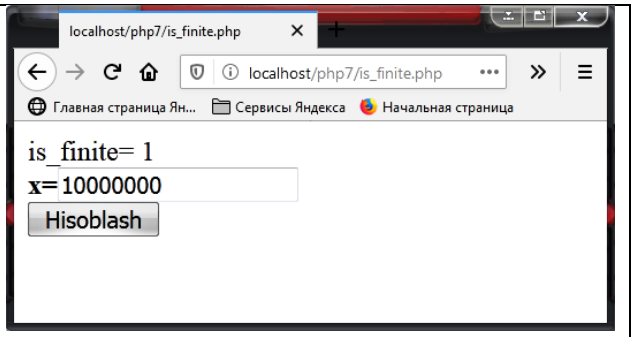


O‘n oltilik sonni kiriting=<input name="x" type="text"> <input type="Submit" value="Hisoblash"></form>	

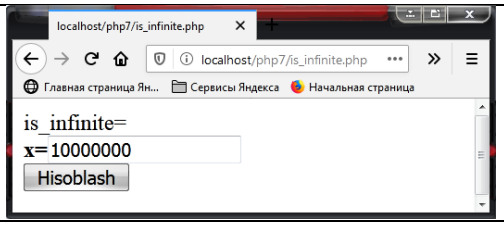
- hypot() - to‘g‘ri burchakli uchburchakda ikki katet bo‘yicha gipotenuzani hisoblash.

<?php $a=$_POST['a']; $b=$_POST['b']; $natija=hypot($a,$b); echo "Gipotenuzasi= $natija"; ?> <form action="hypot.php" method="post" > a=<input name="a" type="text"> b=<input name="b" type="text"> <input type="Submit" value="Hisoblash"></form>	

- is_finite() – berilgan x qiymatning platforma uchun maksimal ekanligini tekshirish.

<?php $x=$_POST['x']; $y=is_finite($x); echo "is_finite= $y"; ?> <form action="is_finite.php" method="post" > x=<input name="x" type="text"> <input type="Submit" value="Hisoblash"></form>	

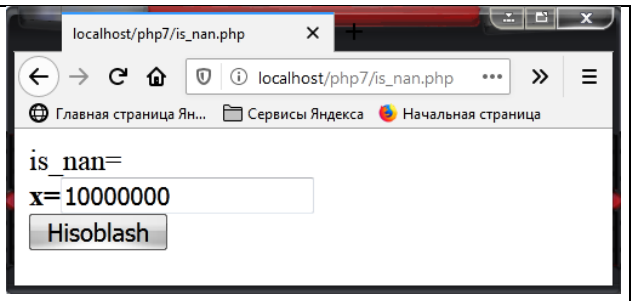
- is_infinite() – berilgan x qiymatning platforma uchun cheksiz ekanligini tekshirish.

<?php $x=$_POST['x']; $y=is_infinite($x); echo "is_infinite= $y"; ?>	

```
<form action="is_infinite.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```

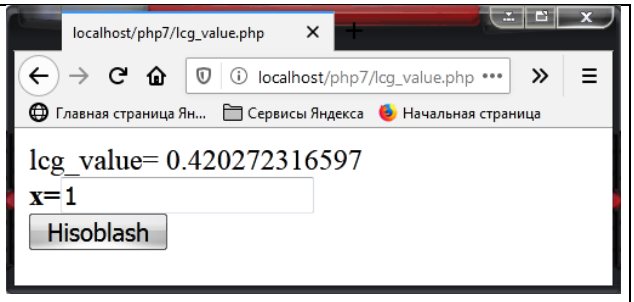
- is_nan() – berilgan x qiymatning platforma uchun nan ekanligini tekshirish.

```
<?php
$x=$_POST['x'];
$y=is_nan($x);
echo "is_nan= $y";
?>
<form action="is_nan.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



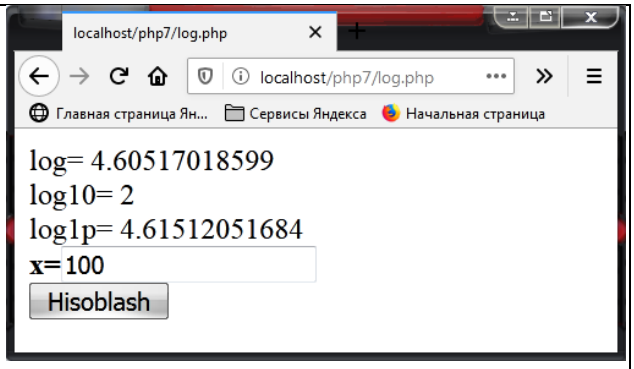
- lcg_value() – 0 va 1 psevdo tasodifiy sonlar generatori.

```
<?php
$x=$_POST['x'];
$y=lcg_value($x);
echo "lcg_value= $y";
?>
<form action="lcg_value.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



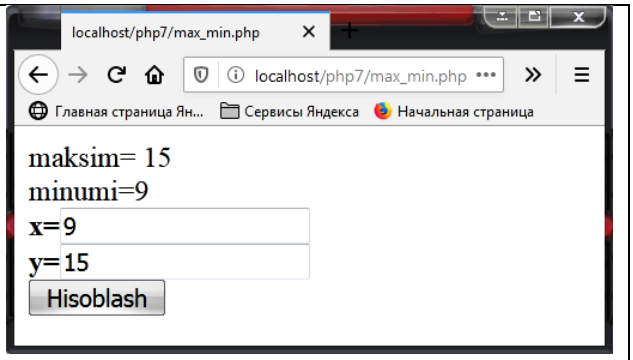
- log10() - o‘nlik logarifm.
- log() - natural logarifm.
- log1p() – log(1+x), bunda x ning qiymati nolga yaqin bo‘lganda ham natija aniq chiqadi. log() ning aniqligi etarli bo‘lmaganligi sababli, bu holda shunchaki log(1) ga qaytiladi.

```php
<?php
$x=$_POST['x'];
$y=log($x);
$y1=log10($x);
$y2=log1p($x);
echo "log= $y<br>log10= $y1<br> log1p= $y2";
?>
<form action="log.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



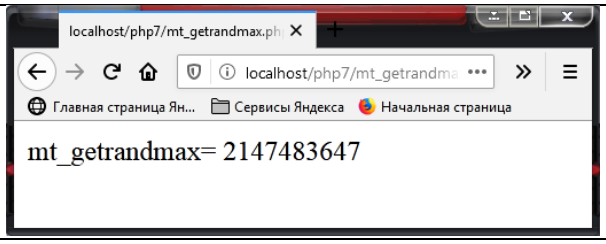
- max() - berilgan x va y sonlarning maksimumi.
- min() - berilgan x va y sonlarning minumimi.

```php
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$max=max($x,$y);
$min=min($x,$y);
echo "maksim= $max <br>
minumi=$min";
?>
<form action="max_min.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



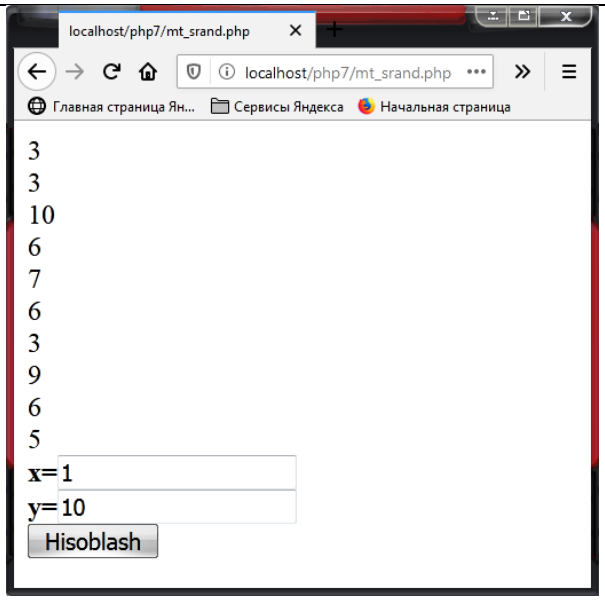
- mt_getrandmax() - mt_rand() funksiyasi bilan olinishi mumkin bo‘lgan maksimal qiymat.

```php
<?php
$y=mt_getrandmax();
echo "mt_getrandmax= $y";
?>
```



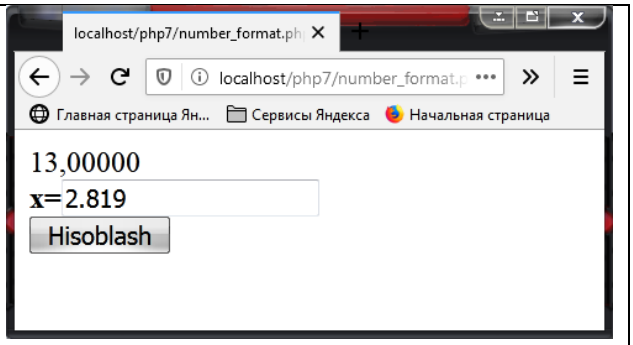
- mt_rand() – tasodifiy son bo‘lib, u son Tvister metodi bo‘yicha generatsiya qilinadi. Funksiyani qo‘llashdan oldin mt_srand() funksiyasi yordamida boshlang‘ich sonni belgilash lozim.
- mt_srand() – berilgan parametrga mos ravishda tasodifiy sonlar generatori uchun boshlang‘ich qiymatni belgilash. Bunda mt_rand() funksiyasiga murojaat jarayonida turli natijalar olish imkonini beradi.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$mt_srand=mt_srand($y);
for ($i=$x; $i<=$y; $i++)
echo  mt_rand($x,$y). "<br> ";
?>
<form action="mt_srand.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



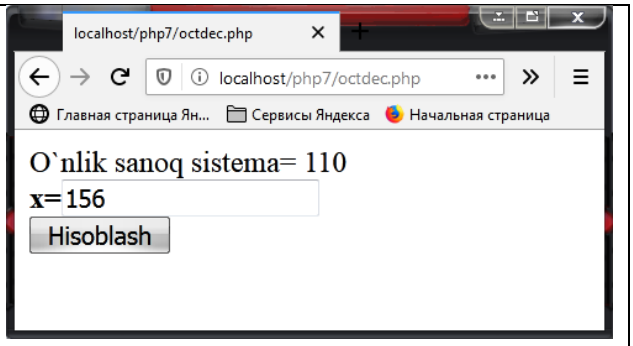
- number_format() – sonni formatlaydi. Uning argumenti: formatlanuvchi son, verguldan keyingi raqamlar soni, o‘nlik nuqta o‘rnida foydalaniladi (uni yozish shart emas), mingliklarni chegaralobchi simvol (uni yozish shart emas).

```
<?php
$x=$_POST['x'];
$y=number_format(12548*log($x));
echo number_format($y,5,',',' ' ');
?>
<form action="number_format.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



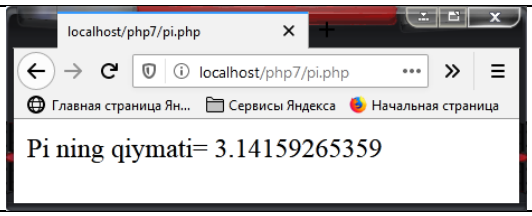
- octdec() –sakkizlik sanoq sistemadagi sonni ifadalovchi satrni o‘nlik qiymatga o‘girish.

```
<?php
$x=$_POST['x'];
$y=octdec($x);
echo "O‘nlik sanoq sistema= $y";
?>
<form action="octdec.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



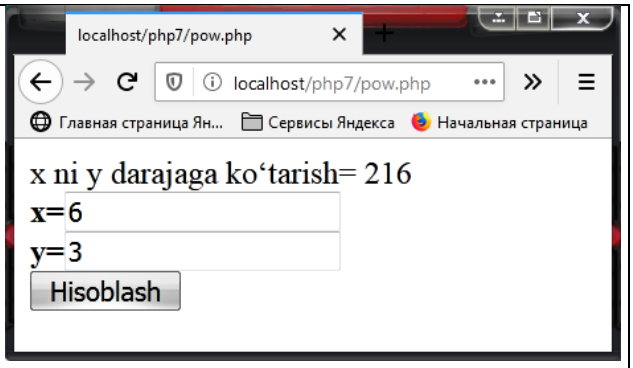
- pi() - π sonining qiymatini aniqlaydi.

```
<?php
$y=pi();
echo "Pi ning qiymati= $y";
?>
```



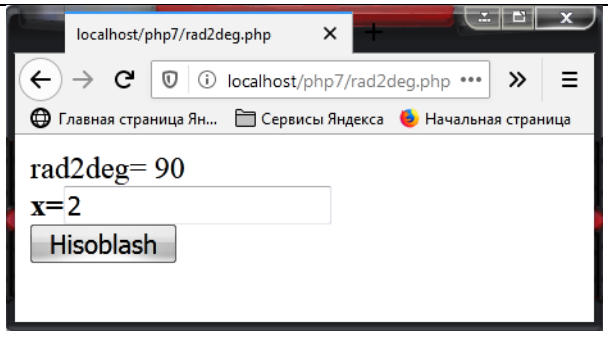
- pow() – x sonini y darajaga ko‘tarish.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$natija=pow($x,$y);
echo "x ni y darajaga ko‘tarish= $natija";
?>
<form action="pow.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



- rad2deg() -radian o‘lchovdan gradus o‘lchovga o‘tish.

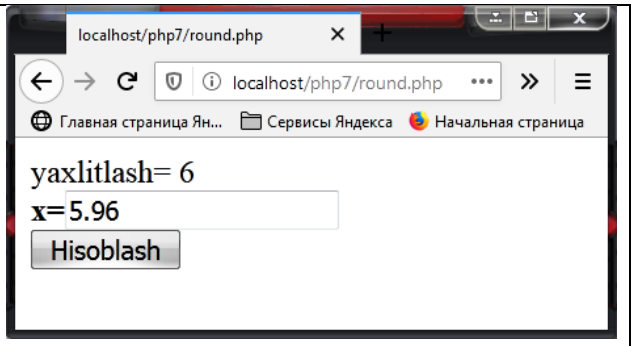
```
<?php
$x=$_POST['x'];
$y=rad2deg(pi()/$x);
echo "rad2deg= $y";
?>
<form action="rad2deg.php"
method="post" >
<b>x=</b><input name="x"
```



```
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```

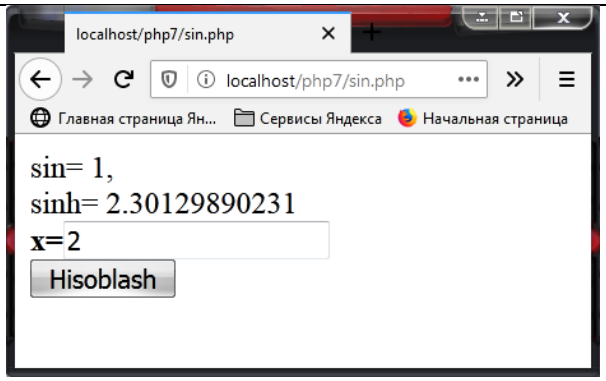
- round() – x sonini yaxlitlash.

```
<?php
$x=$_POST['x'];
$y=round($x);
echo "yaxlitlash= $y";
?>
<form action="round.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



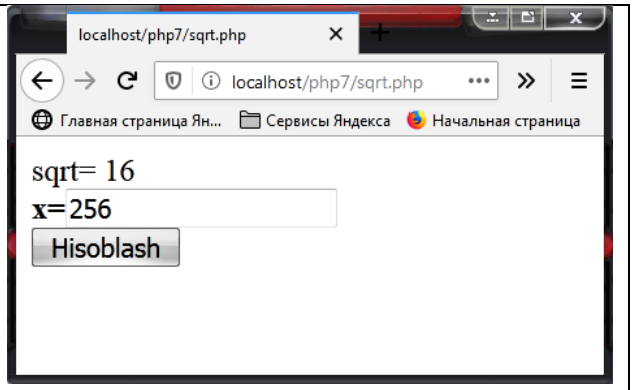
- sin() - radianda ifodalangan sinus.
- sinh() - radianda ifodalangan geperbolik sinus.

```
<?php
$x=$_POST['x'];
$y=sin(pi()/$x);
$y1=sinh(pi()/$x);
echo "sin= $y, <br> sinh= $y1";
?>
<form action="sin.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



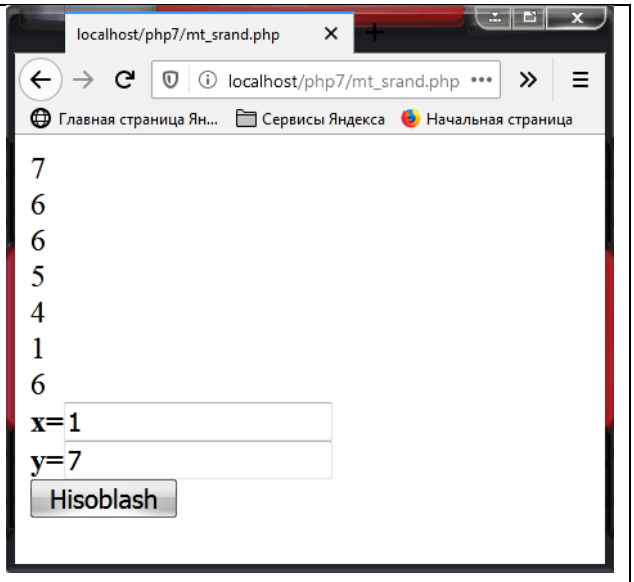
- sqrt() – x sonining kvadrat ildizi.

```
<?php
$x=$_POST['x'];
$y=sqrt($x);
echo "sqrt= $y";
?>
<form action="sqrt.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



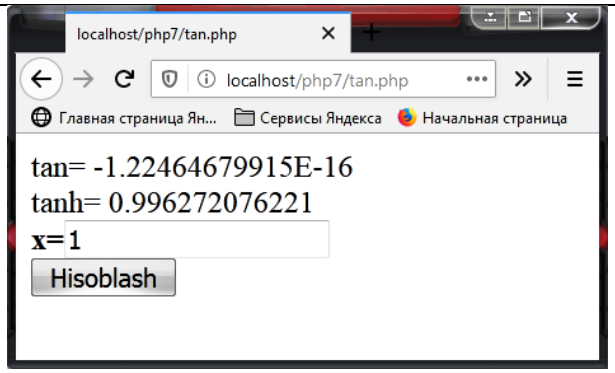
- rand() - psevdotasodifiy son. Majburiy bo‘lmagan arhumentlar ruxsat berilgan qiymatlar diapazon generatorini aniqlaydi. Ular berilgan tasodifiy son 0 dan rand_max gacha bo‘lgan oraliqdan olinadi. Ushbu funksiyadan foydalanishdan oldin srand() funksiyasi yordamida boshlang‘ich son aniqlanishi lozim.
- srand() - psevdotasodifiy sonlar generatorini inisializatsiyalsh.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$srand=srand($y);
for ($i=$x; $i<=$y; $i++)
echo  rand($x,$y). "<br> ";
?>
<form action="mt_srand.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



- tan() - radianda ifodalangan tangens
- tanh() - radianda ifodalangan giperbolik tangens.

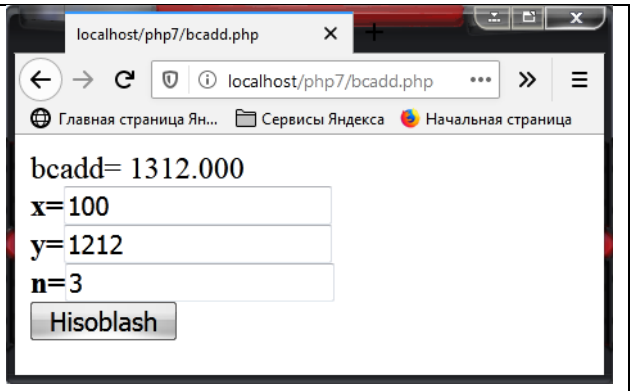
```
<?php
$x=$_POST['x'];
$y=tan(pi()/$x);
$y1=tanh(pi()/$x);
echo "tan= $y <br> tanh= $y1";
?>
<form action="tan.php" method="post" >
<b>x=</b><input name="x"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



PHP tilida matematik hisoblashlarni ixtiyoriy aniqlikda olib borishga mo‘ljallangan fuksiyalar mavjud. Ushbu funksiyalarning o‘ziga xosligi razryadli parametrga ega ekanligidir. Razryadlilik – bu operandlar va natijalardagi o‘nlik nuqtalardan keyin joylashgan belgilar miqdori.

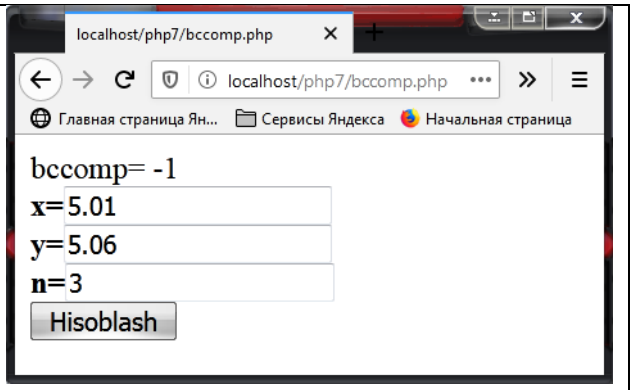
- bcadd() – birinchi va ikkinchi argumentlar yig‘indisi. Uchinchi argument – razryadlilik parametri.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$bcadd=bcadd($x,$y,$n);
echo "bcadd= $bcadd ";
?>
<form action="bcadd.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<b>n=</b><input name="n"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



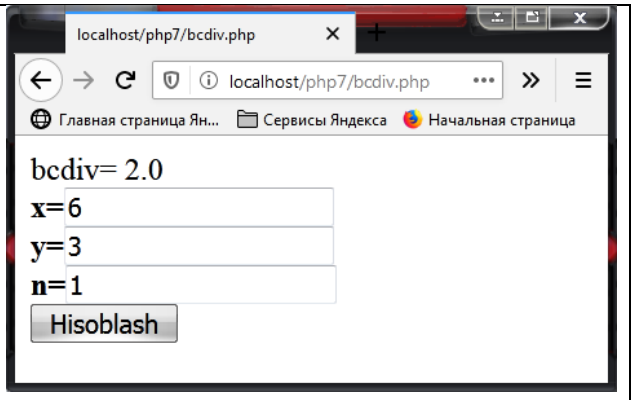
- bccomp() – sonli taqqoslash. Agar birinchi argument ikkinchisidan katta bo‘lsa, u holda +1 ga qaytiladi. Agar birinchi argument ikkinchisidan kichik bo‘lsa, -1 qaytiladi. Agar argument teng bo‘lsa, 0 ga qaytiladi.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$bccomp=bccomp($x,$y,$n);
echo "bccomp= $bccomp ";
?>
<form action="bccomp.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<b>n=</b><input name="n"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



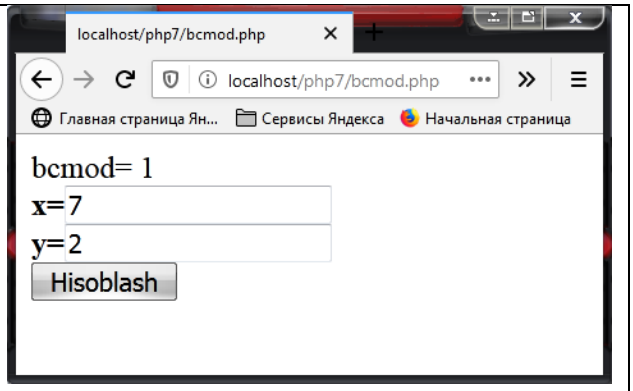
- bcdiv() – birinchi argumentni ikkinchi argumentga bo‘lgandagi bo‘linma.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$bcdiv=bcdiv($x,$y,$n);
echo "bcdiv= $bcdiv ";
?>
<form action="bcdiv.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<b>n=</b><input name="n"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



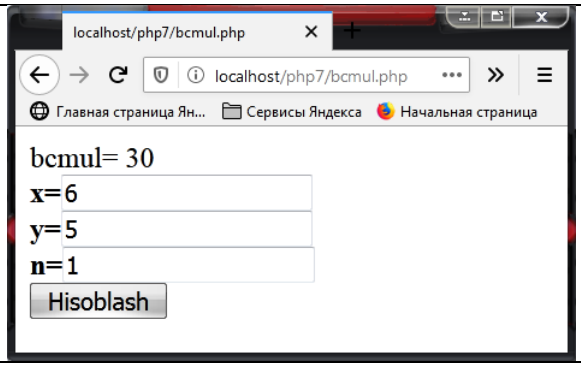
- bcmod() - birinchi argumentni ikkinchi argumentga bo‘lgandagi qoldiq.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$bcmod=bcmod($x,$y);
echo "bcmod= $bcmod ";
?>
<form action="bcmod.php"
method="post" >
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



- bcmul() - birinchi va ikkinchi argumentlarning ko‘paytmasi.

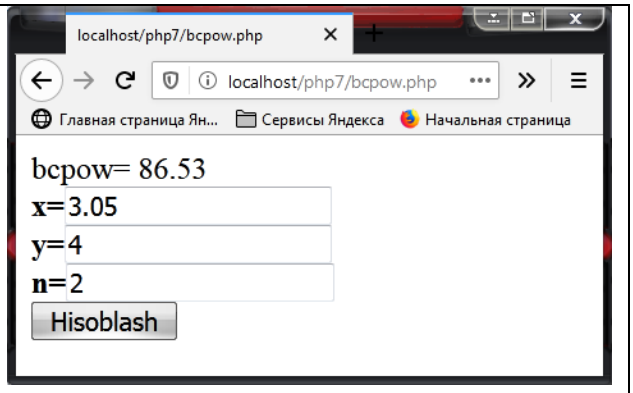
```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$bcmul=bcmul($x,$y,$n);
echo "bcmul= $bcmul ";
?>
<form action="bcmul.php" method="post"
```



```
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<b>n=</b><input name="n"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```

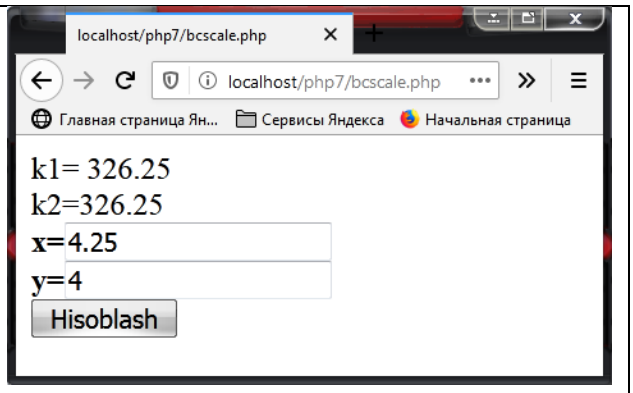
- bcpow() – darajaga ko‘tarish. Argumentlar: asos, daraja ko‘rsatkichi, razryad parametri. Bunda x soni y darajaga ko‘tarib, verguldan keyin ikki xonagacha olinadi.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$n=$_POST['n'];
$bcpow=bcpow($x,$y,$n);
echo "bcpow= $bcpow ";
?>
<form action="bcpow.php" method="post"
>
<b>x=</b><input name="x"
type="text"><br>
<b>y=</b><input name="y"
type="text"><br>
<b>n=</b><input name="n"
type="text"><br>
<input type="Submit" value="Hisoblash">
</form>
```



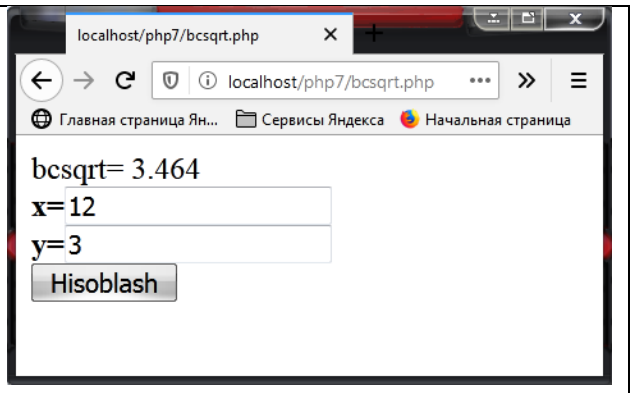
- bcscale() – standart holda foydalanuvchi razryadli parametrlarining qiymati.

```
<?php
$x=$_POST['x'];
$y=$_POST['y'];
$k1=bcpow($x,$y);
$bcscale=bcscale(2);
$k2=bcpow($x,$y);
echo "k1= $k1<br> k2=$k2";
?>
<form action="bcscale.php"
method="post" >
<b>x=</b><input name="x"
```

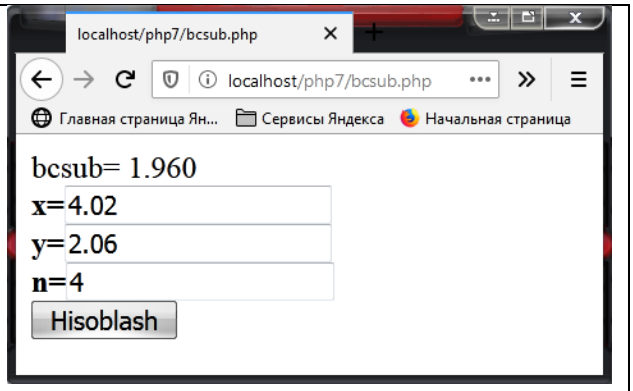


type="text"> y=<input name="y" type="text"> <input type="Submit" value="Hisoblash"> </form>	

- bcsqrt() – sonning kvadrat ildizi.

<?php $x=$_POST['x']; $y=$_POST['y']; $bcsqrt=bcsqrt($x,$y); echo "bcsqrt= $bcsqrt"; ?> <form action="bcsqrt.php" method="post" > x=<input name="x" type="text"> y=<input name="y" type="text"> <input type="Submit" value="Hisoblash"> </form>	

- bcsub() – birinchi argumentdan ikkinchisini ayirish.

<?php $x=$_POST['x']; $y=$_POST['y']; $n=$_POST['n']; $bcsub=bcsub($x,$y,$n); echo "bcsub= $bcsub "; ?> <form action="bcsub.php" method="post" > x=<input name="x" type="text"> y=<input name="y" type="text"> n=<input name="n" type="text"> <input type="Submit" value="Hisoblash"> </form>	

2.2. PHP DA TIPLARNI E’LON QILISH

PHP tilida turli tipdagi o‘zgaruvchilardan foydalanish mumkin, shu sababli, har bir tipdagi o‘zgaruvchilar qanday tavsiflanishini bilish zarur.

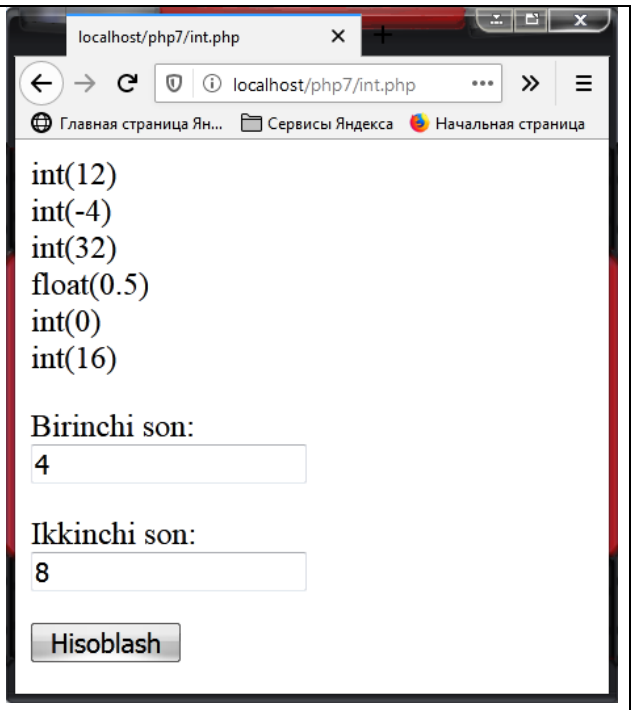
PHP tilida bitta o‘zgaruvchini dastur bajarilishi davomida satr yoki son sifatida ishlatish mumkin. Shu bilan birga PHP tilida o‘zgaruvchilar bilan ishlanganda oshkor ko‘rsatilishi mumkin bo‘lgan asosiy ma’lumotlar tiplari to‘plami mavjud.

Bunday operatorlarni o‘rganishdan avval, ushbu funksiyani o‘rganish maqsadga nuvofiq var_dump(). Bu biror-bir miqdorning qiymatini va tipini chiqarishga imkon beradi.

- **Butun (integer) sonlar** – ular -2147483648 dan 2147483647 gacha ko‘lamdagi kasr bo‘lmagan son bo‘lib, ularda sonning asosi (10 lik), o‘n oltilik (asosi 16-prefiksga ega) yoki sakkizlik (asosi 8-prefiksli) sanoq sistemalar ko‘rsatiladi.

Butun sonlarga misol.

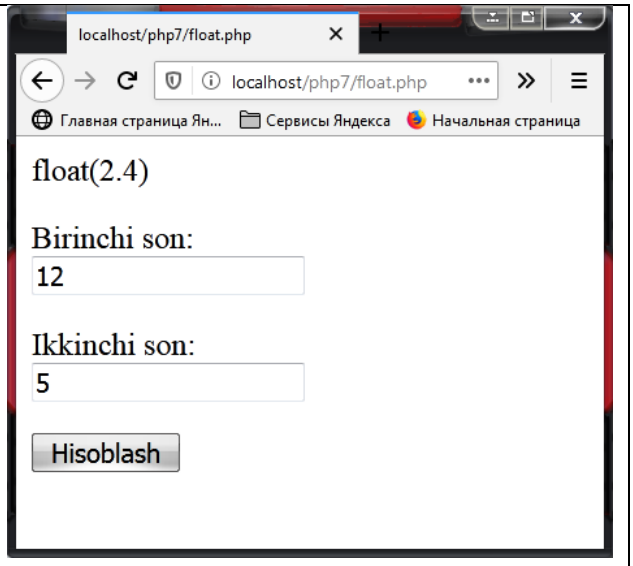
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
// Qo‘shish
var_dump($a + $b);
echo "<br>";
// Ayirish
var_dump($a - $b);
echo "<br>";
// Ko‘paytirish
var_dump($a * $b);
echo "<br>";
// Bo‘lish
var_dump($a / $b);
echo "<br>";
// Qoldiqli bo‘lish
var_dump($a % 4);
echo "<br>";
// Darajaga ko‘tarish
var_dump(pow($a,2));
?>
<form action="int.php" method="post">
<p>Birinchi son: <br><input name="a"
type="text"></p>
<p>Ikkinchi son: <br><input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- **Siljuvchi vergulli (float) sonlar** – sonning kompyuterda amalga oshiriladigan eksponentsiol yozuvi. Xuddi shuningdek, “ikkilangan aniqlikga” ega bo‘lgan son ham mavjud.

Haqiqiy songa misol.

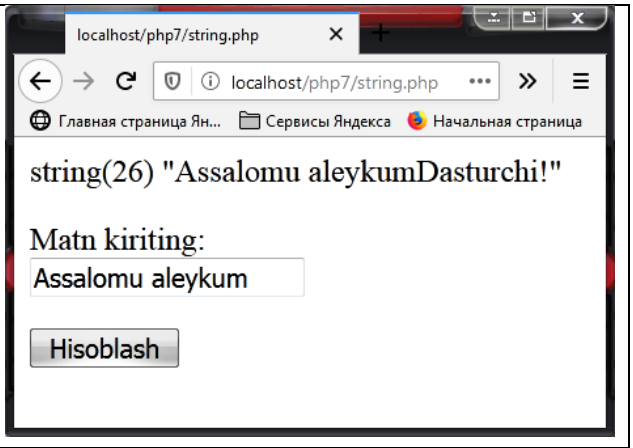
```
<?php
$x = $_POST['x'];
$y = $_POST['y'];
$s= $x/$y;
var_dump($s);
?>
<form action="float.php" method="post">
<p>Birinchi son: <br><input name="x"
type="text"></p>
<p>Ikkinchi son: <br><input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- **Satr (string)** – simvollar ketma – ketligidan iborat bo‘lib, unda har bir simvol bir bayt o‘lchamdan, toki maksimal uzunlik 216 gacha bo‘lgan joyni egallaydi. Yakka qavslarga olingan satrlar literallar sifatida qaraladi, ayni paytda ikkilangan qavslar ichidagi satrlar esa (maxsus belgilar, o‘zgaruvchilarning qiymatlari va shu kabilar) sifatida talqin qilinadi.

Belgilarga misol.

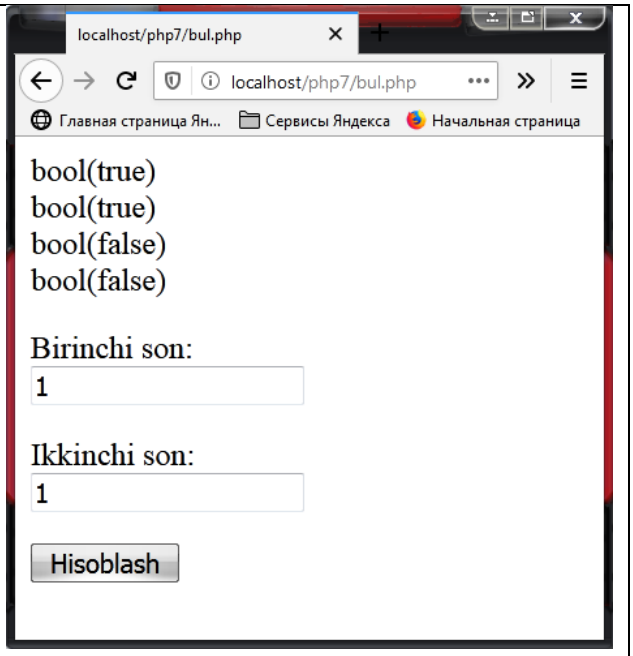
```
<?php
$a = $_POST['a'];
$a .= 'Dasturchi!';
var_dump($a);
?>
<form action="string.php" method="post">
<p>Matn kiriting: <br><input name="a"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- **Bul (boolean) tipi -** Mantiqiy ifoda bo‘lib, uning qiymati faqat rost (True) yoki yolg‘on (False) dan iborat.

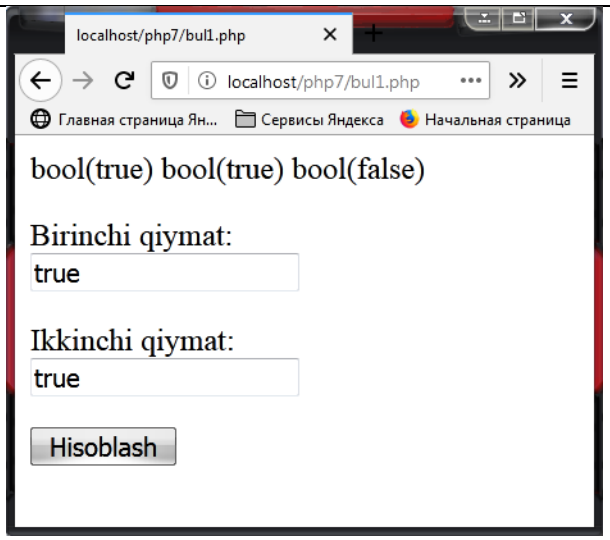
Bul (boolean) tipi misol: Mantiqiy tip True (Rost)=1 yoki True (Rost)=1 qiymat qabul qilganda.

```php
<?php
$x =$_POST['x'];
$y = $_POST['y'];
var_dump($x == $y);
echo "<br>";
//tenglikni tekshirish
var_dump($x === $y);
echo "<br>";
//aynan tenglikni tekshirish
var_dump($x != $y); //tenglikni tekshirish
echo "<br>";
//tenglikni tekshirish
var_dump($x !== $y);
// aynan tenglikni tekshirish
?>
<form action="bul.php" method="post">
<p>Birinchi son: <br><input name="x"
type="text"></p>
<p>Ikkinchi son: <br><input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



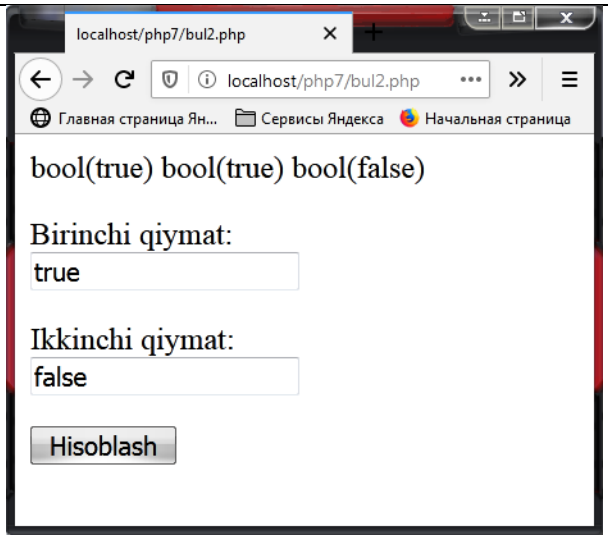
Misol 1: Mantiqiy tip True (Rost) yoki True (Rost) qiymat qabul qilganda.

```php
<?php
$x =$_POST['x'];
$y = $_POST['y'];
var_dump($x && $y);
var_dump($x || $y);
var_dump($x xor $y);
?>
<form action="bul1.php" method="post">
<p>Birinchi qiymat: <br><input
name="x" type="text"></p>
<p>Ikkinchi qiymat: <br><input
name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



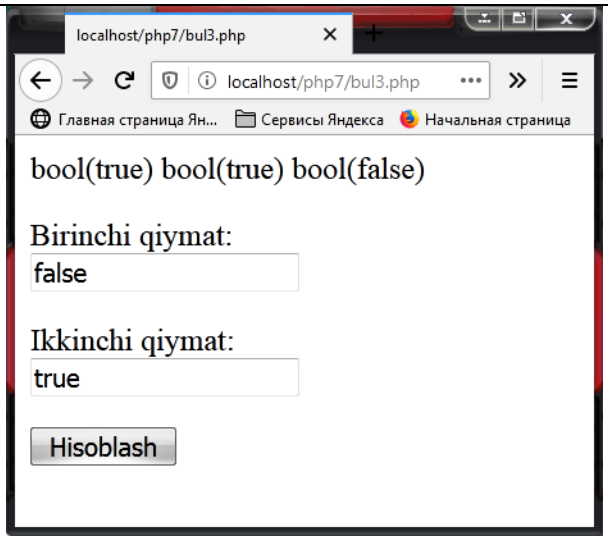
Misol 2: Mantiqiy tip True (Rost) yoki False (Yolg‘on) qiymat qabul qilganda.

```
<?php
$x =$_POST['x'];
$y = $_POST['y'];
var_dump($x && $y);
var_dump($x || $y);
var_dump($x xor $y);
?>
<form action="bul2.php" method="post">
<p>Birinchi qiymat: <br><input
name="x" type="text"></p>
<p>Ikkinchi qiymat: <br><input
name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Misol 3: Mantiqiy tip False (Yolg‘on) yoki True (Rost) qiymat qabul qiladi

```
<?php
$x =$_POST['x'];
$y = $_POST['y'];
var_dump($x && $y);
var_dump($x || $y);
var_dump($x xor $y);
?>
<form action="bul3.php" method="post">
<p>Birinchi qiymat: <br><input name="x"
type="text"></p>
<p>Ikkinchi qiymat: <br><input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- **Massiv (array)** – bir nechta qiymatlarning tartiblashtirilgan xaritasi bo‘lib, undagi kalitlar qiymatlarga mos keladi. Kalitlar – bu indeks nomerlari (ular so‘zsiz tushuniladi) yoki aniq ko‘rsatilgan nishonlar.
- **Ob’ekt** – bu berilganlarning xossalarini saqlovchi va berilganlarni qayta ishlash metodlaridan iborat bo‘lgan sinf.
- **Resurs** – tashqi resursga havola bo‘lib, ular maxsus funksiyalar tomonidan yaratiladi va saqlanadi.
- **NULL** – qiymatga ega bo‘lmagan o‘zgaruvchi. Bu o‘zgaruvchi, shakllantirilmagan bo‘ladi (unga hech bir qiymat berilmagan bo‘ladi), agar unga NULL o‘zgarmasi ta’minlangan bo‘lsa yoki unset() funksiyasi yordamida bekor qilinmagan bo‘lsa.

2.3. PHP DA ARIFMETIK, MANTIQIY OPERATORLAR VA ULARNING TADBIQI

Arifmetik amallar va qiymat berish operatori. Berilganlarni qayta ishlash uchun PHP tilida amallarning juda keng majmuasi aniqlangan. Amal - bu qandaydir harakat bo‘lib, u bitta (unar) yoki ikkita (binar) operandlar ustida bajariladi, hisob natijasi uning qaytariluvchi qiymati hisoblanadi. Tayanch arifmetik amallarga qo‘shish (+), ayirish (-), ko‘paytirish (*), bo‘lish (/) va bo‘lish qoldig‘ini olish (%) amallarini keltirish mumkin. Amallar qaytaradigan qiymatlarni o‘zlashtirish uchun qiymat berish amali (=) va uning turli modifikatsiyalari ishlatiladi: qo‘shish, qiymat berish bilan (+); ayirish, qiymat berish bilan (-); ko‘paytirish qiymat berish bilan (*); bo‘lish, qiymat berish bilan (/); bo‘lish qoldig‘ini olish, qiymat berish bilan (%) va boshqalar. Ularning umumiy ko‘rinishlariga to‘xtalamiz.

Razryadli mantiqiy amallar. Dastur tuzish tajribasi shuni ko‘rsatadiki, odatda qo‘yilgan masalani yechishda biror holat ro‘y berganligini yoki yo‘qligini ifodalash uchun 0 va 1 qiymat qabul qiluvchi bayroqlardan foydalaniladi. Shu maqsadda bir yoki undan ortiq baytli o‘zgaruvchilardan foydalanish mumkin. Masalan, bool (mantiqiy) tupdagi o‘zgaruvchini shu maqsadda ishlatsa bo‘ladi. Boshqa tomondan, bayroq sifatida baytning razryadlaridan foydalanish ham mumkin. Chunki razryadlar faqat ikkita qiymatni – 0 va 1 sonlarini qabul qiladi. Bir baytda 8 razryad bo‘lgani uchun unda 8 ta bayroqni kodlash imkoniyati mavjud. Quyidagi jadvalda PHP tilida bayt razryadlari ustida mantiqiy amallar majmuasi keltirilgan.

Bayt razryadlari ustida mantiqiy amallar

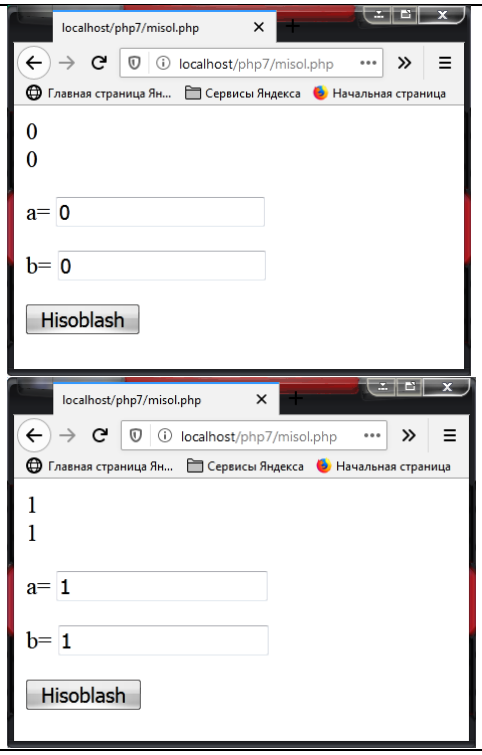
Amallar	Mazmuni
Or yoki **&**	Mantiqiy VA (ko’paytirish)
Xor yoki **|**	Mantiqiy yoki (qo’shish))
And yoki **^**	Istisno qiluvchi YOKI
!	Mantiqiy INKOR (inversiya)

Razryadli mantiqiy amallarning bajarish natijalarini jadval ko‘rinishida ko‘rsatish mumkin.

Razryadli mantiqiy amallarni bajarish natijalari

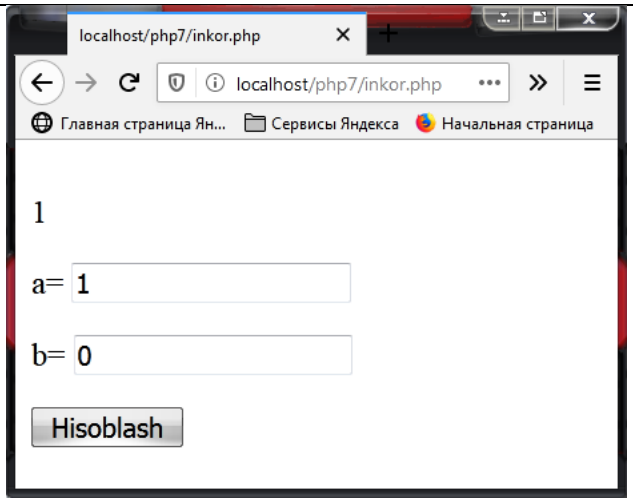
A	**B**	**A&B**	**A|B**	**A^B**
0	**0**	**0**	**0**	**0**
0	**1**	**0**	**1**	**1**
1	**0**	**0**	**1**	**1**
1	**1**	**1**	**1**	**0**

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
echo($a&$b);
echo"<br>";
echo(($a|$b));
echo"<br>";
echo($a^$b);
 ?>
<form action="misol.php" method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



A	!A
0	1
1	0

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
echo(!$a);
echo"<br>";
echo(!$b);
?>
<form action="inkor.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



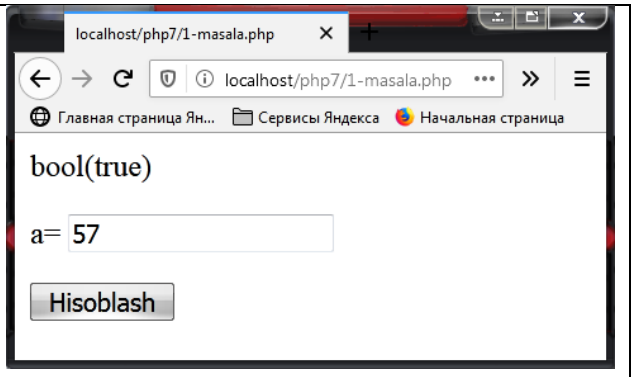
Yuqorida keltirilgan misol uchun qo‘riqlash tizimini ifodalovchi bir baytli char tupidagi o‘zgaruvchini e’lon qilish mumkin.

Bu guruh operatorlari razryadli operatorlardan farqli mantiqiy (**boolean**) o‘zgaruvchilar bilan ishlaydi va boshqaruvchi konstruktsiyalar:sikllar va shartlarda

ishlatiladi. Mantiqiy o‘zgaruvchilar yoki to‘g‘rirog‘i **Boolean** tipidagi o‘zgaruvchilar faqat ikki qiymatga egalar: **true(rost)** va **false(yolg‘on)**. Ifodalarda **true** va **false** qiymatlarini 1(0 dan farqli ixtiyoriy son) va 0 ga almashtirish mumkin. Bu imkoniyat maxsus **true** va **false** qiymatlariga ega bo‘lmagan php tilining merosidir.

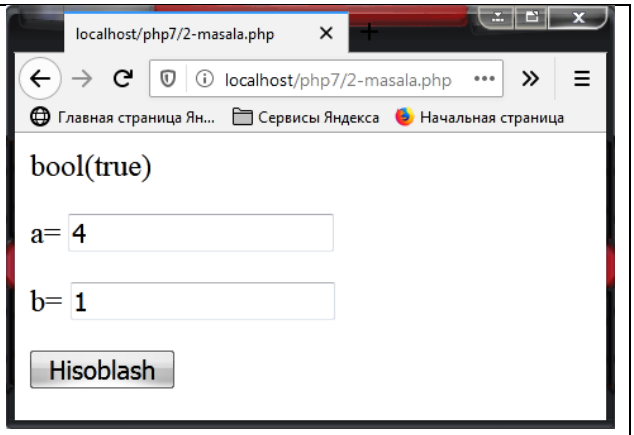
1-masala. A butun soni berilgan. Jumlani rostlikka tekshiring: “A soni toq son”.

```
<?php
$a = $_POST['a'];
var_dump($a%2==1);
?>
<form action="1-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



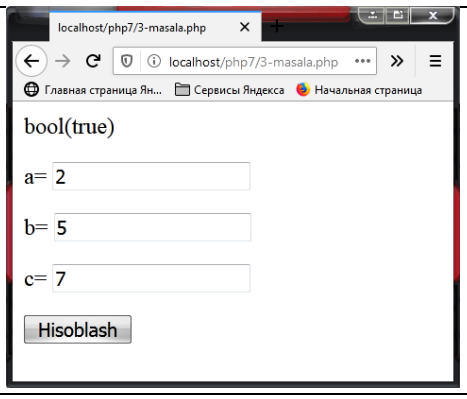
2-masala. Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A>2 va B<=3”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
var_dump(($a>2)and($b<=3));
?>
<form action="2-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



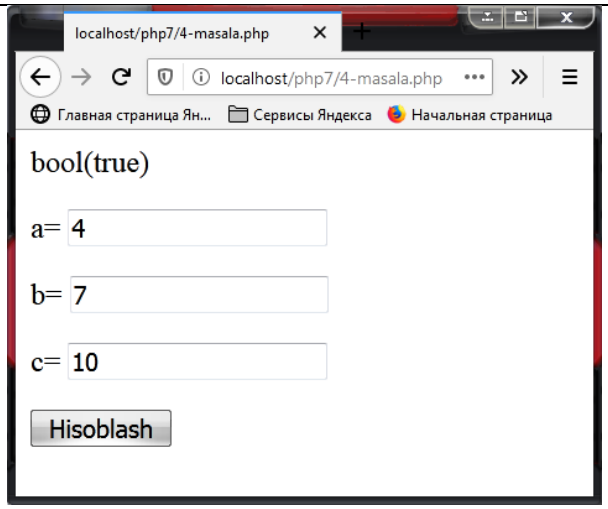
3-masala Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “A<=B<=C”

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump(($a<=$b)and($b<=$c));
?>
<form action="3-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
```

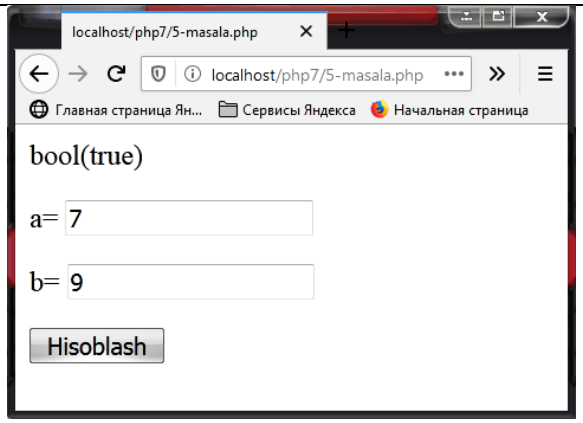


b= <input name="b" type="text"> c= <input name="c" type="text"> <input type="submit" value="Hisoblash"> </form>	

4-masala. Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “B soni A va C sonlari orasida yotadi”.

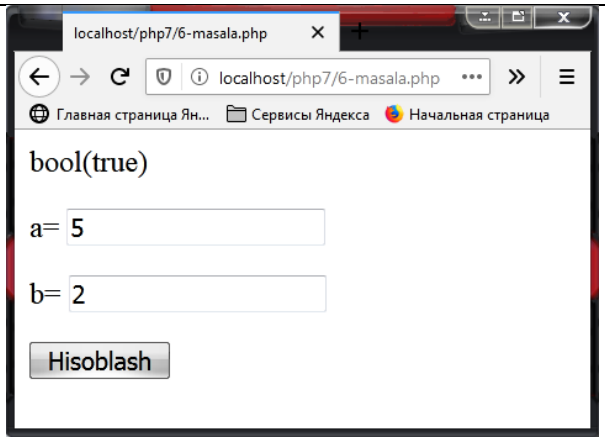
<?php $a = $_POST['a']; $b = $_POST['b']; $c = $_POST['c']; var_dump(($a<=$b)and($b<=$c)); ?> <form action="3-masala.php" method="post"> a= <input name="a" type="text"> b= <input name="b" type="text"> c= <input name="c" type="text"> <input type="submit" value="Hisoblash"> </form>	

5-masala. Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A va B sonlari toq sonlar”.

<?php $a = $_POST['a']; $b = $_POST['b']; var_dump(($a%2==1)and($b%2==1)); ?> <form action="5-masala.php" method="post"> a= <input name="a" type="text"> b= <input name="b" type="text"> <input type="submit" value="Hisoblash"> </form>	

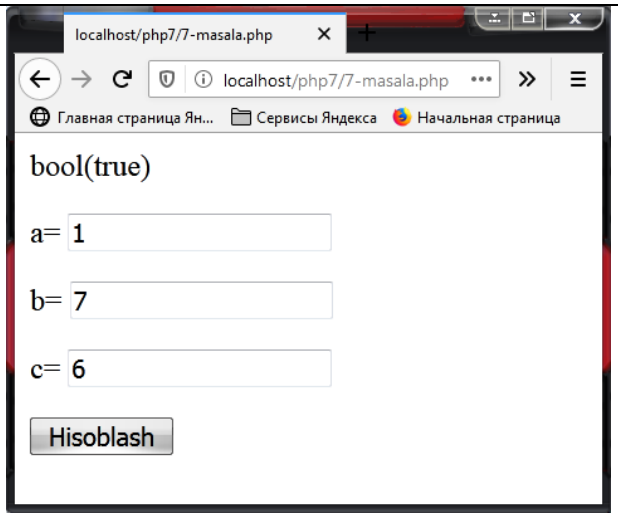
6-masala Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A va B sonlarning faqat bittasi toq son”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
var_dump(($a%2==1)or($b%2==1));
?>
<form action="6-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



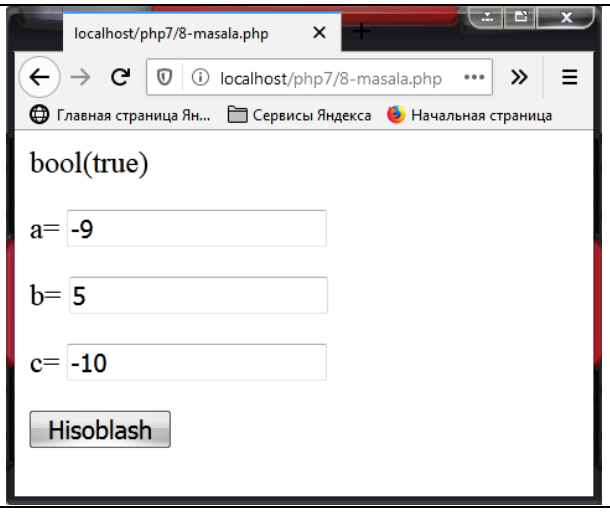
7-masala Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “A, B, C sonlarning har biri musbat”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump(($a>0)and($b>0)and($c>0));
?>
<form action="7-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



8-masala Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “A, B, C sonlaridan faqat bittasi musbat son”.

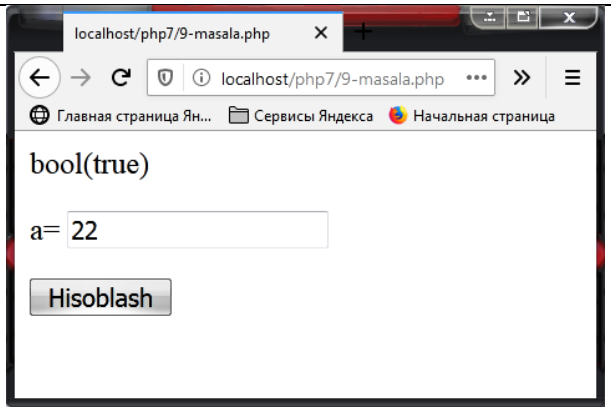
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump((($a>0)and($b<0)and($c<0))or(
($a<0)and($b>0)and($c<0))or
(($a<0)and($b<0)and($c>0)));
?>
<form action="8-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
```



```
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

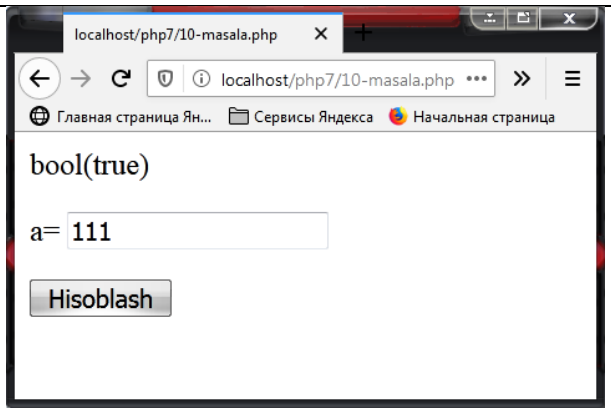
9-masala. Musbat butun son berilgan. Jumlani rostlikka tekshiring: “Berilgan son ikki xonali juft son”.

```
<?php
$a = $_POST['a'];
var_dump(($a>9)and($a<100)and($a%2==0));
?>
<form action="9-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



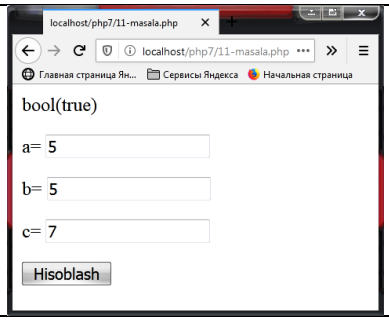
10-masala. Musbat butun son berilgan. Jumlani rostlikka tekshiring: “Berilgan son uch xonali toq son”.

```
<?php
$a = $_POST['a'];
var_dump((($a>99)and($a<1000)and($a%2==1)));
?>
<form action="10-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



11-masala. Jumlani rostlikka tekshiring: “Berilgan uchta butun sonlarning hech bo‘lmaganda 2 tasi bir biriga teng”.

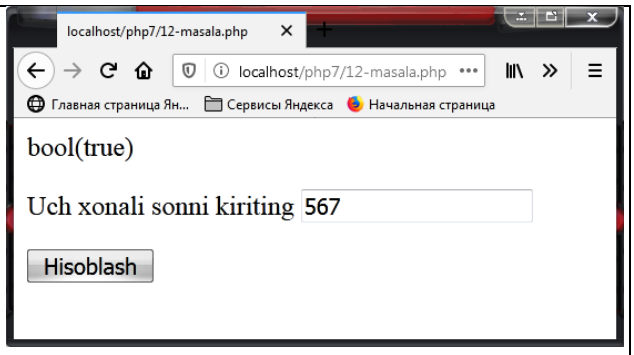
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump(($a=$b)or($a=$c)or($b=$c));
?>
<form action="11-masala.php"
```



```
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

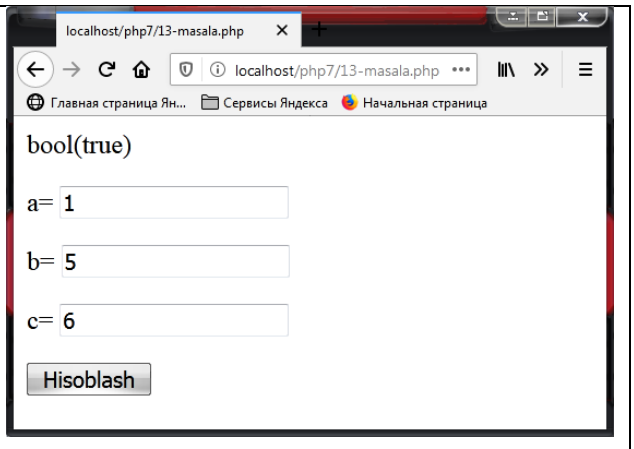
12-masala. Uch xonali son berilgan. Jumlani rostlikka tekshiring: “Ushbu sonning barcha raqamlari xar xil”.

```
<?php
$a = $_POST['a'];
$x=floor($a/100);
 $y=floor($a/10)% 10;
 $z=floor($x%100)%10;
var_dump(($x<>$y)and($x<>$z)and($y<>
$z));
?>
<form action="12-masala.php"
method="post">
<p>Uch xonali sonni kiriting <input
name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



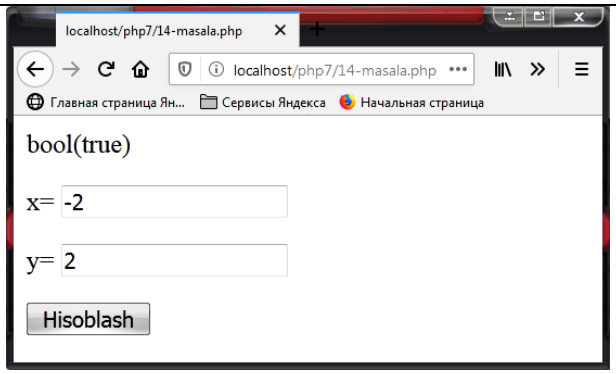
13-masala. A, B, C sonlar berilgan (A soni noldan farqli). $D=B^2-4AC$ diskriminantdan foydalanib, jumlani rostlikka tekshiring: “$Ax^2+Bx+C=0$ kvadrat tenglama haqiqiy ildizga ega”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
$d=pow($b,2)-4*$a*$c;
var_dump(($a<>0)and($d>=0));
?>
<form action="13-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



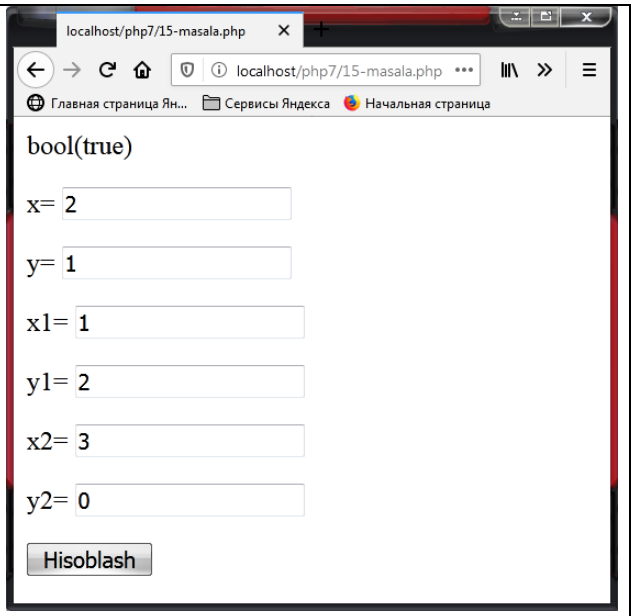
14-masala. x, y sonlar berilgan. Jumlani rostlikka tekshiring: “Koordinatalari (x,y) bo‘lgan nuqta, koordinata choragining ikkinchisida yotadi”.

```
<?php
$x = $_POST['x'];
$y = $_POST['y'];
var_dump(($x<0)and($y>0));
?>
<form action="14-masala.php"
method="post">
<p>x= <input name="x" type="text"></p>
<p>y= <input name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



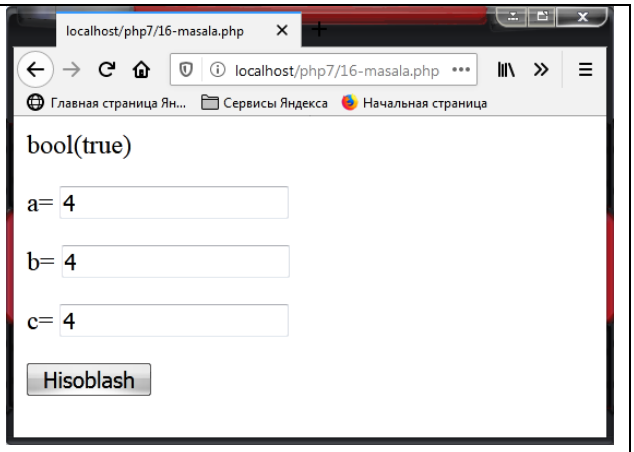
15-masala. (x, y), (x1, y1), (x2, y2) sonlari berilgan. Jumlani rostlikka tekshiring: “Koordinatalari (x,y) bo‘lgan nuqta, chap yuqori cho’qqisi (x1,y1) koordinatalarga ega bo‘lgan va o‘ng pastikisi (x2,y2) bo‘lgan, tomonlari esa koordinata o‘qlariga parallel bo’lgan to‘rtburchak ichida yotadi”.

```
<?php
$x = $_POST['x'];
$y = $_POST['y'];
$x1 = $_POST['x1'];
$y1 = $_POST['y1'];
$x2 = $_POST['x2'];
$y2 = $_POST['y2'];
var_dump(($x>$x1)and($x2>$x))and(($y1>
$y)and($y>$y2));
?>
<form action="15-masala.php"
method="post">
<p>x= <input name="x" type="text"></p>
<p>y= <input name="y" type="text"></p>
<p>x1= <input name="x1"
type="text"></p>
<p>y1= <input name="y1"
type="text"></p>
<p>x2= <input name="x2"
type="text"></p>
<p>y2= <input name="y2"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



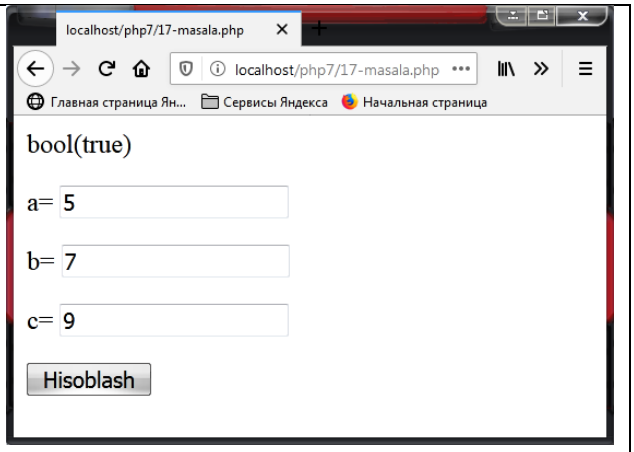
16-masala. a, b, c butun sonlari berilgan. Jumlani rostlikka tekshiring: “a, b, c tomonli uchburchak teng tomonli bo‘ladi”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump(($a=$b)and($a=$c)and($b=$c))
;
?>
<form action="16-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



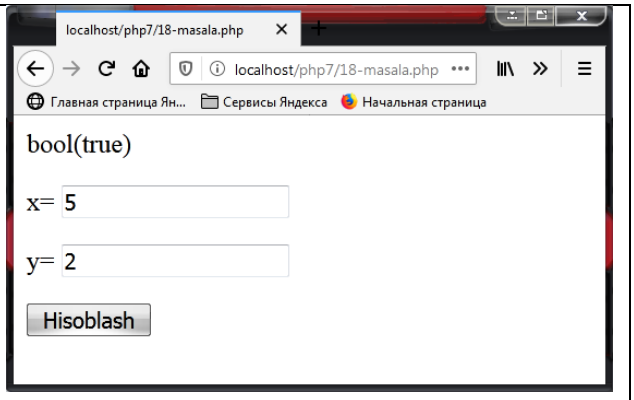
17-masala. a, b, c butun sonlar berilgan. Jumlani rostlikka tekshiring: “a, b, c tomonli uchburchak yasash mumkin”.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
var_dump((($a+$b)>$c)or (($a+$c)>$b)or
(($c+$b)>$a));
?>
<form action="17-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



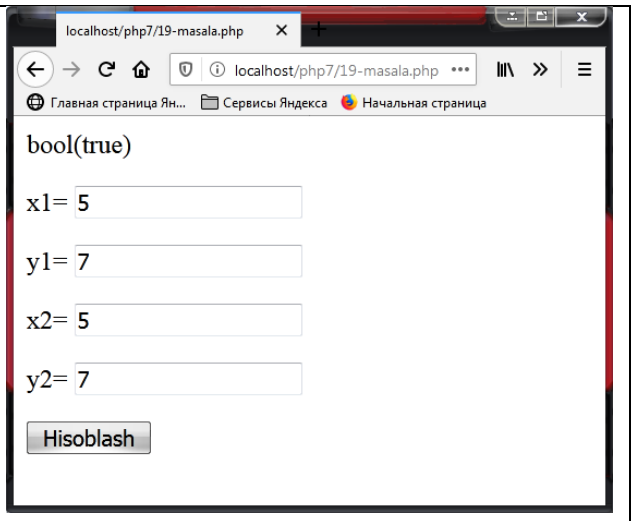
18-masala. Shaxmat doskasining x, y koordinatalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Doskaning chap pastki maydoni (1,1) qoraligini hisobga olib, jumlani rostlikka tekshiring: “Berilgan (x, y) koordinatali maydon oq”.

```
<?php
$x = $_POST['x'];
$y = $_POST['y'];
var_dump((($x+$y)%2==1));
?>
<form action="18-masala.php"
method="post">
<p>x= <input name="x" type="text"></p>
<p>y= <input name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



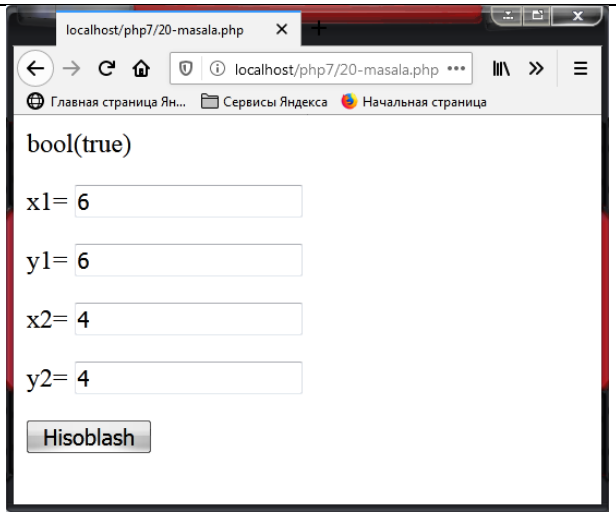
19-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Ruh bir yurishda bir maydondan ikkinchisiga o‘ta oladi”.

```
<?php
$x1 = $_POST['x1'];
$y1 = $_POST['y1'];
$x2 = $_POST['x2'];
$y2 = $_POST['y2'];
var_dump(($x1=$x2)or($y1=$y2));
?>
<form action="19-masala.php"
method="post">
<p>x1= <input name="x1"
type="text"></p>
<p>y1= <input name="y1"
type="text"></p>
<p>x2= <input name="x2"
type="text"></p>
<p>y2= <input name="y2"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



20-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Ot bir yurishda bir maydondan ikkinchisiga o‘ta oladi”.

```
<?php
$x1 = $_POST['x1'];
$y1 = $_POST['y1'];
$x2 = $_POST['x2'];
$y2 = $_POST['y2'];
var_dump((abs($y2-$y1)==2)or(abs($x2-
$x1)==2)and(abs($y2-$y1)==1));
?>
<form action="20-masala.php"
method="post">
<p>x1= <input name="x1"
type="text"></p>
<p>y1= <input name="y1"
type="text"></p>
<p>x2= <input name="x2"
type="text"></p>
<p>y2= <input name="y2"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

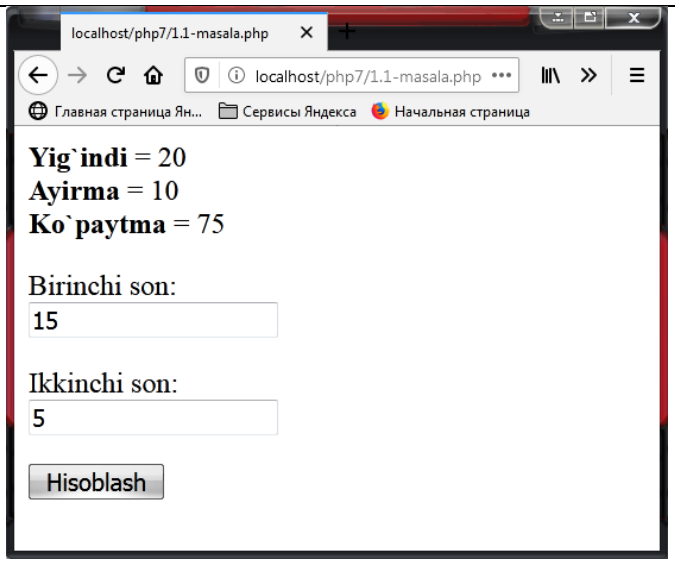


2.4. PHP DA CHIZIQLI ALGORITMLAR BILAN ISHLASH

1.1-masala. A va B ikkita haqiqy sonlar berilgan. Ularning yig‘indisi, ayirmasi va ko‘paytmasini hisoblang.

Yechish. a va b sonlar yig‘indisini S, ayirmasini d, ko‘paytmasini k bilan belgilasak, S=a+b, d=a-b, k=a*b formulalar o’rinli bo‘ladi.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$s = $a + $b; $d = $a - $b;
$k = $a * $b;
echo "<p><b>Yig`indi</b> =
$s<br><b>Ayirma</b> =
$d<br><b>Ko`paytma</b> = $k</p>";
?>
<form action="1.1-masala.php"
method="post">
<p>Birinchi son: <br><input name="a"
type="text"></p>
<p>Ikkinchi son: <br><input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



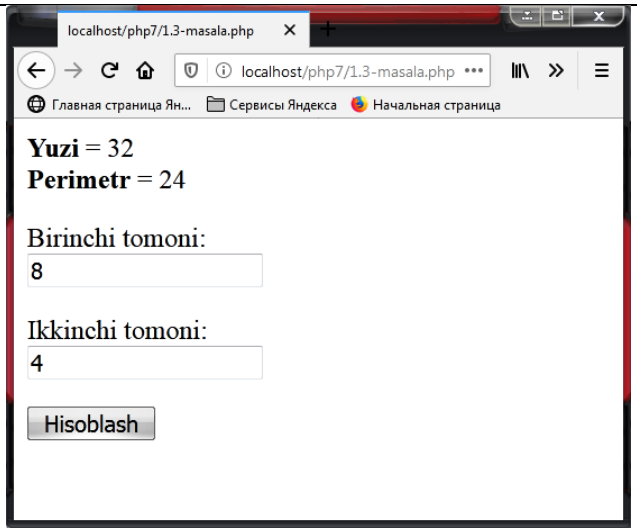
1.2-masala. Ikkita musbat son berilgan, bu sonlarning o‘rta arifmetik va o‘rta geometrik qiymatlarini aniqlang.
Yechish. a va b sonlarning o‘rta arifmetik qiymatini c, o‘rta geometrik qiymatini d bilan belgilasak, $c = \frac{a+b}{2}$; $d = \sqrt{a \cdot b}$; formulalar o‘rinli bo‘ladi.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$s = ($a + $b)/2;
$d = sqrt($a * $b);
echo "<p><b>O‘rta arifmetik qiymati
</b> = $s<br><b>O‘rta geometrik
qiymati </b> = $d</p>";
?>
<form action="1.2-masala.php"
method="post">
<p>Birinchi son: <br><input name="a"
type="text"></p>
<p>Ikkinchi son: <br><input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



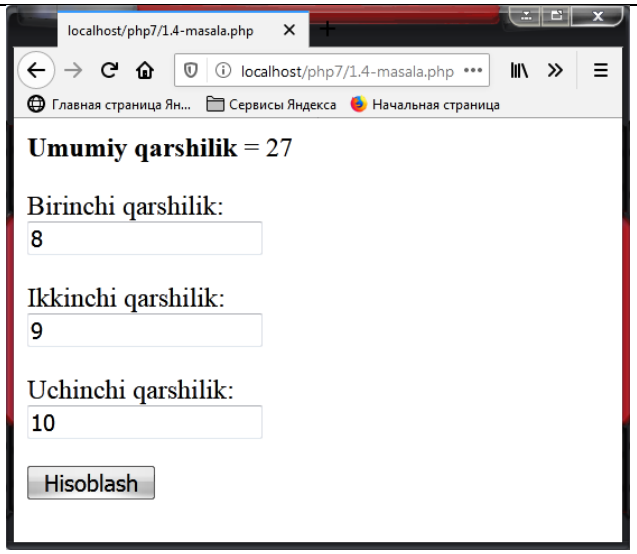
1.3-masala. Tomonlari A va B ga teng to‘g‘ri to‘rtburchakning yuzi va peremetri hisoblang. Yechish. To‘g‘ri to‘rtburchakning yuzi $s = a \cdot b$, peremetri $p = 2 \cdot (a + b)$ formulalar yordamida aniqlanadi.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$s = $a * $b;
$p = 2*($a + $b);
echo "<p><b>Yuzi</b> =
$s<br><b>Perimetr</b> = $p</p>";
?>
<form action="1.3-masala.php"
method="post">
<p>Birinchi tomoni: <br><input name="a"
type="text"></p>
<p>Ikkinchi tomoni: <br><input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



1.4-masala. R1, R2, R3 uchta qarshiliklar ketma-ket ulangan zanjirning qarshiligini aniqlang. Yechish. Zanjirning umumiy qarshiligini R bilan belgilasak, ketma-ket ulashda $R = R_1 + R_2 + R_3$ formulalar o‘rinli bo‘ladi.

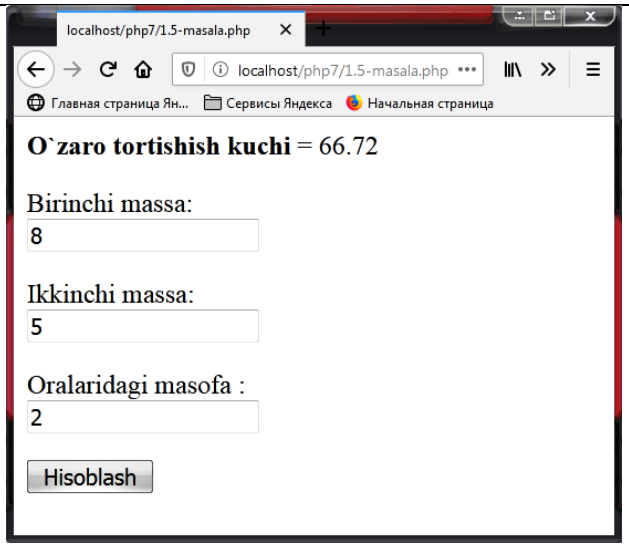
```
<?php
$R1 = $_POST['R1'];
$R2 = $_POST['R2'];
$R3 = $_POST['R3'];
$R = $R1 + $R2+$R3;
echo "<p><b>Umumiy qarshilik </b> =
$R</p>";
?>
<form action="1.4-masala.php"
method="post">
<p>Birinchi qarshilik: <br><input
name="R1" type="text"></p>
<p>Ikkinchi qarshilik: <br><input
name="R2" type="text"></p>
<p>Uchinchi qarshilik: <br><input
name="R3" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



1.5-masala. Massalari M1 va M2 (kg) ga teng, oralaridagi masofa R (m) ga teng bo’lgan ikkita jismning o‘zaro tortishish kuchi F ni aniqlang. Bunda gravitatsion doimiysini $G=6{,}672\cdot10^{-11}$ ($N\cdot m^2/kg^2$) deb oling.

Yechish. Butun olam tortilish qonuniga ko‘ra $F = G\frac{m_1 \cdot m_2}{R^2}$; yerning massasi $m_1 = 5{,}97\cdot10^{24}$, oyning massasi $m_2 = 7{,}35\cdot10^{22}$, yer bilan oy orasidagi masofa $R = 3{,}844\cdot10^{8}$. Izoh. Yer bilan Oyning massalari kilogrammda, masofa mertda, kuch Nyutonda o‘lchanadi.

```
<?php
$M1 = $_POST['M1'];
$M2 = $_POST['M2'];
$R = $_POST['R'];
define ('G', '6.672*E-11');
$F = (G*$M1*$M2)/($R*$R);
echo "<p><b>O‘zaro tortishish kuchi </b>
= $F</p>";
?>
<form action="1.5-masala.php"
method="post">
<p>Birinchi massa: <br><input
name="M1" type="text"></p>
```

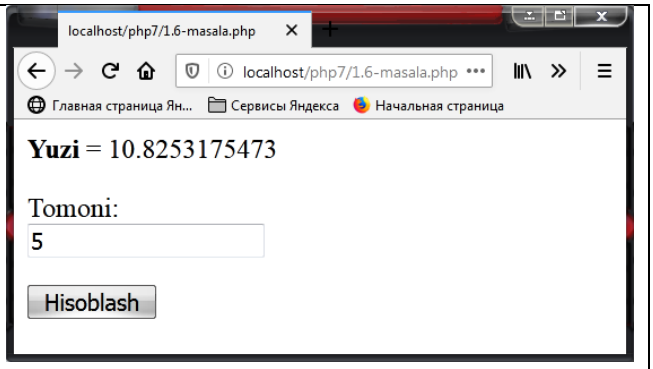


```
<p>Ikkinchi massa: <br><input
name="M2" type="text"></p>
<p>Oralaridagi masofa : <br><input
name="R" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

1.6-masala. Teng tomonli uchburchakning tomoni A ga teng. Uchburchakning yuzini toping.

Yechish. Teng tomonli uchburchakning yuzini S bilan belgilasak, Formula o‘rinli bo‘ladi. $S = a^2 \cdot \frac{\sqrt{3}}{4}$

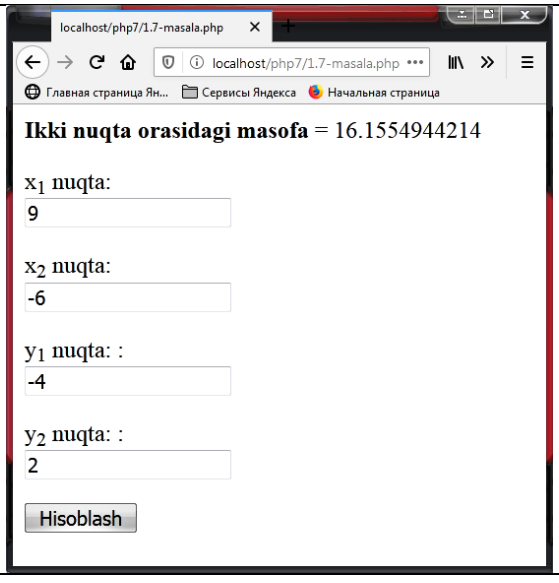
```
<?php
$a = $_POST['a'];
$S =($a*$a)*sqrt(3)/4;
echo "<p><b>Yuzi</b> = $S </p>";
?>
<form action="1.6-masala.php"
method="post">
<p>Tomoni: <br><input name="a"
type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



1.7-masala. Koordinatalari X_1,Y_1 va X_2, Y_2 ga teng bo‘lgan nuqtalari orasidagi masofani hisoblang.

Yechish. Ikki nuqta orasidagi masofa $S = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$; formula yordamida aniqlanadi.

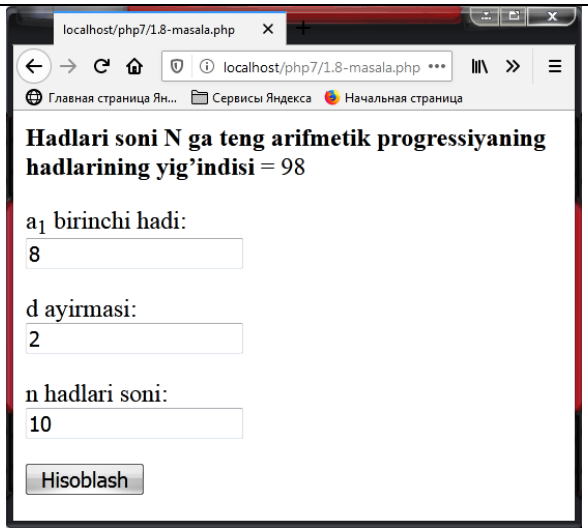
```
<?php
$x1 = $_POST['x1'];
$x2 = $_POST['x2'];
$y1 = $_POST['y1'];
$y2 = $_POST['y2'];
$s = sqrt(pow(($x2-$x1),2)+pow(($y2-$y1),2));
echo "<p><b>Ikki nuqta orasidagi masofa </b> =
$s</p>";
?>
<form action="1.7-masala.php" method="post">
<p>x<sub>1</sub> nuqta: <br><input
name="x1" type="text"></p>
<p>x<sub>2</sub> nuqta:  <br><input
name="x2" type="text"></p>
```



y₁ nuqta: : <input name="y1" type="text"> y₂ nuqta: : <input name="y2" type="text"> <input type="submit" value="Hisoblash"> </form>	

1.8-masala. Birinchi hadi A, ayirmasi D, hadlari soni N ga teng arifmetik progressiyaning hadlarining yig‘indisini hisoblang.

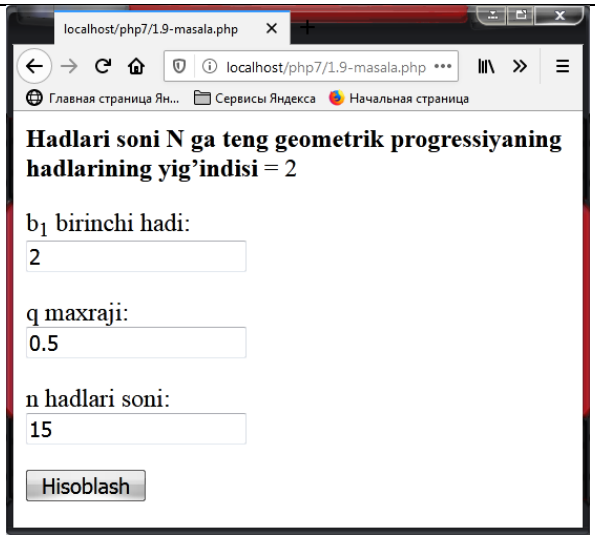
Yechish. Arifmetik progressiya istalgan hadi va hadlari yig‘indisi uchun $a_n = a + d \cdot (n-1)$, $S_n = \frac{2 \cdot a + d \cdot (n-1) \cdot n}{2}$, formulalar o‘rinli bo‘ladi.

<?php $a1 = $_POST['a1']; $d = $_POST['d']; $n = $_POST['n']; $s = (2*$a1+$d*($n-1)*$n)/2; echo " Hadlari soni N ga teng arifmetik progressiyaning hadlarining yig‘indisi = $s "; ?> <form action="1.8-masala.php" method="post"> a₁ birinchi hadi: <input name="a1" type="text"> d ayirmasi: <input name="d" type="text"> n hadlari soni: <input name="n" type="text"> <input type="submit" value="Hisoblash"> </form>	

1.9-masala. Birinchi hadi B, maxraji Q va hadlari soni N ga teng geometrik progressiyaning hadlarining yig‘indisini hisoblang.

Yechish. Geometrik progressiyaning istalgan hadi va hadlari yig‘indisi $b_n = b \cdot q^{n-1}$; $s_n = \frac{b \cdot q - b}{q-1}$; formula yordamida aniqlanadi.

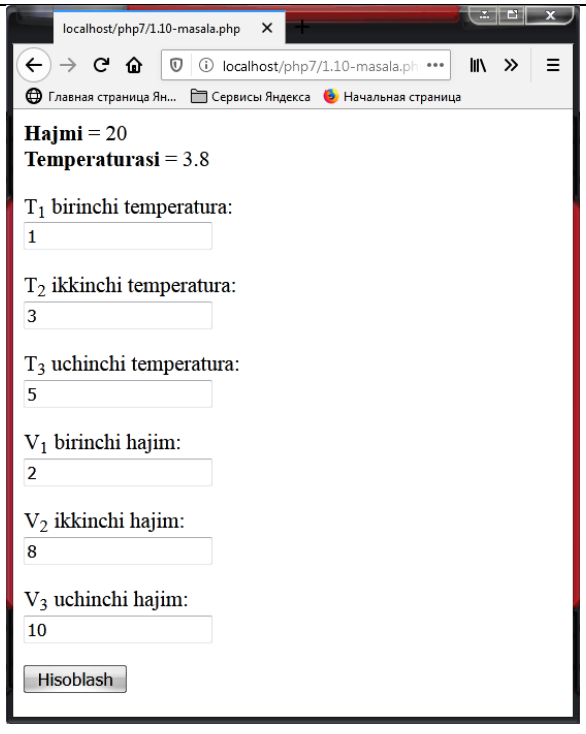
```
<?php
$b1 = $_POST['b1'];
$q = $_POST['q'];
$n = $_POST['n'];
$s = ($b1*$q-$b1)/($q-1);
echo "<p><b>Hadlari soni N ga teng
geometrik progressiyaning hadlarining
yig‘indisi</b> = $s</p>";
?>
<form action="1.9-masala.php"
method="post">
<p>b<sub>1</sub> birinchi hadi: <br><input
name="b1" type="text"></p>
<p>q maxraji: <br><input name="q"
type="text"></p>
<p> n hadlari soni: <br><input name="n"
type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



1.10-masala. Uchta idishga suv solingan. Idishlardagi suvlarning temperaturasi mos ravishda T_1, T_2, T_3 ga, hajmi esa V_1, V_2, V_3 ga teng. Idishlardagi suvni bitta idishga quyilsa, uning hajmi va temperaturasi qanday bo‘ladi?

Yechish. Idishlardagi suvni bitta idishga quyilsa, suvning hajmi va temperaturasi $V = V_1 + V_2 + V_3;\ \ T = \dfrac{V_1 * T_1 + V_2 * T_2 + V_3 * T_3}{V}$ formulalar bilan aniqlanadi.

```
<?php
$T1 = $_POST['T1'];
$T2 = $_POST['T2'];
$T3 = $_POST['T3'];
$V1 = $_POST['V1'];
$V2 = $_POST['V2'];
$V3 = $_POST['V3'];
$V = $V1+$V2+$V3;
$T = ($V1*$T1+$V2*$T2+$V3*$T3)/$V;
echo "<p><b>Hajmi</b> =
$V<br><b>Temperaturasi</b> = $T</p>";
?>
<form action="1.10-masala.php"
method="post">
<p>T<sub>1</sub> birinchi temperatura:
<br><input name="T1" type="text"></p>
<p>T<sub>2</sub> ikkinchi temperatura:
```



```
<br><input name="T2" type="text"></p>
<p>T<sub>3</sub> uchinchi temperatura:
<br><input name="T3" type="text"></p>
<p>V<sub>1</sub> birinchi hajim:
<br><input name="V1" type="text"></p>
<p>V<sub>2</sub> ikkinchi hajim:
<br><input name="V2" type="text"></p>
<p>V<sub>3</sub> uchinchi hajim:
<br><input name="V3" type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```

1.11-masala. Berilgan sonning butun qismini aniqlang. Yechish. A sonning butun qismini B bilan belgilasak, B=floor(A) formula bilan aniqlanadi.

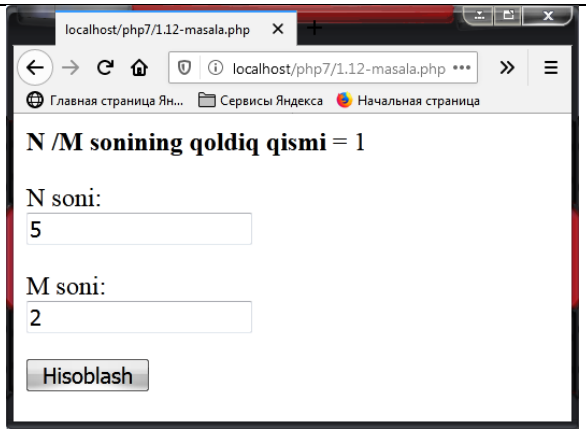
```
<?php
$A = $_POST['A'];
$B=floor($A);
echo "<p><b>A sonining butun qismi</b> =
$B</p>";
?>
<form action="1.11-masala.php" method="post">
<p>A sonining butun qismi: <br><input
name="A" type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



1.12-masala. N/M ifodani hisoblashda hosil bo‘ladigan qoldiqni toping.

Yechish. Qoldiqni Z bilan belgilasak, u holda $Z = N - floor(\frac{N}{M}) \cdot M$ formula bilan hisoblanadi.

```
<?php
$M = $_POST['M'];
$N = $_POST['N'];
$Z=$N-floor($N/$M)*$M;
echo "<p><b>N /M sonining qoldiq qismi</b>
= $Z</p>";
?>
<form action="1.12-masala.php"
method="post">
<p>N soni: <br><input name="N" ></p>
<p>M soni: <br><input name="M" ></p>
<p><input type="submit"
```

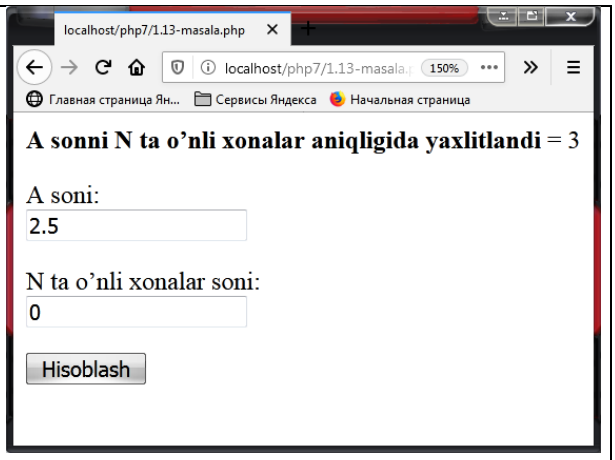


value="Hisoblash"></p> </form>	

1.13-masala. Sonni berilgan aniqlikda yaxlitlang.

Yechish. A sonni N ta o‘nli xonalar aniqligida yaxlitlash uchun $B = \frac{Ceil(A \cdot 10^N + 0.5)}{10^N}$; formuladan foydalanamiz.

```
<?php
$A = $_POST['A'];
$N = $_POST['N'];
$B=ceil(($A*pow(10, $N ) + 0.5))/pow(10, $N);
echo "<p><b>A sonni N ta o‘nli xonalar aniqligida yaxlitlandi</b> = $B</p>";
?>
<form action="1.13-masala.php" method="post">
<p>A soni: <br><input name="A" type="text"></p>
<p>N ta o’nli xonalar soni:  <br><input name="N" type="text"></p>
<p><input type="submit" value="Hisoblash"></p>
</form>
```



1.14-masala. Berilgan burchakni radian o‘lchovidan gradus o‘lchoviga o‘tkazing.

Yechish. A gradusga teng burchakni radian o‘lchoviga ushbu formula yordamida o‘tkaziladi. $S = \frac{A \cdot 3{,}14159}{180}$;

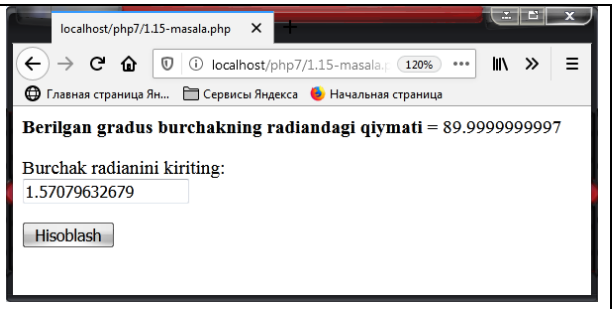
```
<?php
$a = $_POST['a'];
$s=($a*pi())/180;
echo "<p><b>Berilgan radian burchakning gradusdagi qiymati</b> = $s </p>";
?>
<form action="1.14-masala.php" method="post">
<p>Burchak gradusini kiriting: <br><input name="a" type="text"></p>
<p><input type="submit" value="Hisoblash"></p>
</form>
```



1.15-masala. Berilgan burchakni gradus o‘lchovidan radian o‘lchoviga o‘tkazing.

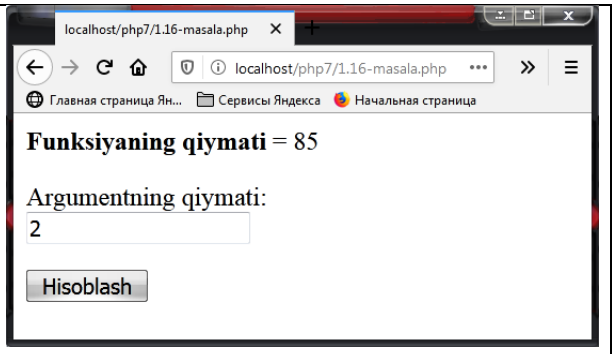
Yechish. A radianga teng burchakni gradus o‘lchoviga o‘tkazish uchun $S = \frac{A \cdot 180}{3{,}14159}$ formulasidan foydalaniladi.

```
<?php
$a = $_POST['a'];
$s=($a*180)/pi();
echo "<p><b>Berilgan gradus burchakning
radiandagi qiymati</b> = $s </p>";
?>
<form action="1.15-masala.php"
method="post">
<p>Burchak radianini kiriting: <br><input
name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



1.16-masala. Argument X ning qiymatlari berilganda $F=2(x+3)+3(x+3)^2$ funksiyaning qiymatlarini aniqlang.
Yechush. Dastur qisqaroq bo‘lishi uchun y=x+3 oraliq o‘zgaruvchi kiritamiz.

```
<?php
$x = $_POST['x'];
$F=2*($x+3)+3*pow(($x+3),2);
echo "<p><b>Funksiyaning qiymati</b> = $F
</p>";
?>
<form action="1.16-masala.php"
method="post">
<p>Argumentning qiymati: <br><input
name="x" type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



1.17-masala. Uzunligi L(m) ga teng matematik mayatnikning tebranish davrini hisoblang. (Hisoblash formulasi $T=2\pi\sqrt{LG}$, bunda $\pi = 3.14; G = 9.81$ (m/s^2)).

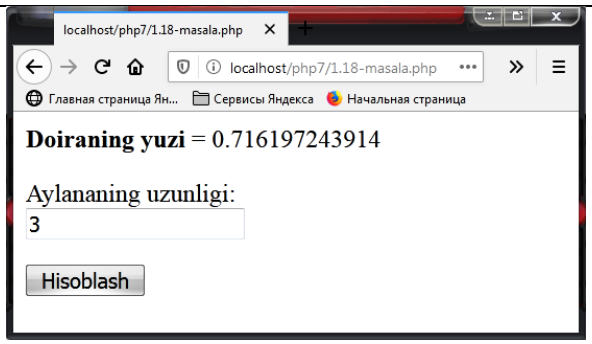
```
<?php
$L = $_POST['L'];
define ('G','9.81');
$T=2*pi()*sqrt($L*G);
echo "<p><b>Tebranish davri</b> = $T</p>";
?>
```



```
<form action="1.17-masala.php"
method="post">
<p>Uzunligini kiriting: <br><input name="L"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

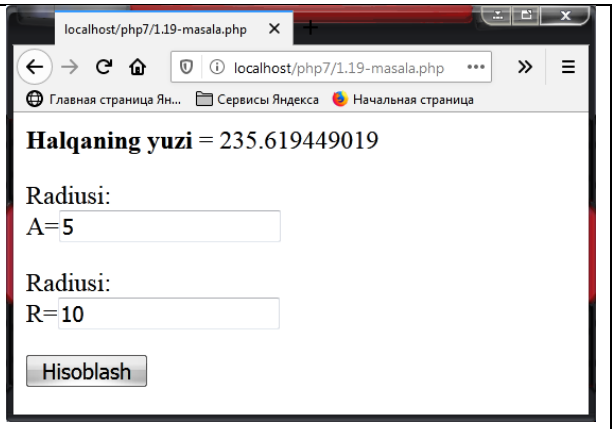
1.18-masala. Aylananing uzunligi C berilgan. Shu aylana bilan chegaralangan doiraning yuzi S ni aniqlang. (Hisoblash formulasi: $S=C^2/4\pi$).

```
<?php
$C= $_POST['C'];
$s=pow($C,2)/(4*pi());
echo "<p><b>Doiraning yuzi</b> = $s</p>";
?>
<form action="1.18-masala.php" method="post">
<p>Aylananing uzunligi: <br><input name="C"
type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



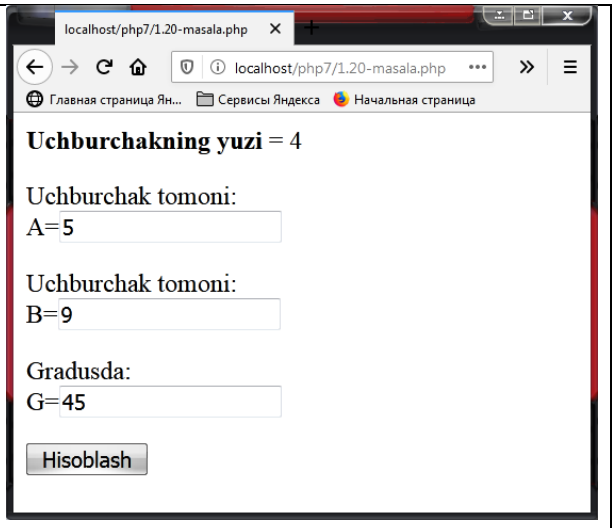
1.19-masala. Radiuslari A va R ga teng (A<R) halqa yuzi hisoblansin. (Hisoblash formulasi: $S=\pi(R^2-A^2)$).

```
<?php
$A= $_POST['A'];
$R= $_POST['R'];
$S=pi()*(pow($R,2)-pow($A,2));
echo "<p><b>Halqaning yuzi</b> = $S</p>";
?>
<form action="1.19-masala.php"
method="post">
<p>Radiusi: <br>A=<input name="A"
type="text"></p>
<p>Radiusi:<br>R=<input name="R"
type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



1.20-masala. Uchburchakning A va B ikkita tomoni va ular orasidagi burchagi G (gradusda) berilgan. Uchburchakning uchinchi tomonini toping. (Hisoblash formulasi:$C=\sqrt{(A^2+B^2-2AB\cdot CosG)}$).

```
<?php
$A= $_POST['A'];
$B= $_POST['B'];
$G= $_POST['G'];
$G=($G*pi)/180;
$S=sqrt($A*$A+$B*$B-2*$A*$B*cos($G));
echo "<p><b>Uchburchakning yuzi</b> =
$S</p>";
?>
<form action="1.20-masala.php"
method="post">
<p>Uchburchak tomoni: <br>A=<input
name="A" type="text"></p>
<p>Uchburchak tomoni:<br>B=<input
name="B" type="text"></p>
<p>Gradusda:<br>G=<input name="G"
type="text"></p>
<p><input  type="submit"
value="Hisoblash"></p>
</form>
```



2.5. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLAR

Topshiriq: 1) Quyidagi mantiqiy masalalarni PHP dasturlash tilida tuzing:
1-masala. A butun soni berilgan. Jumlani rostlikka tekshiring: “A soni musbat”.
2-masala. A butun soni berilgan. Jumlani rostlikka tekshiring: “A soni juft son”.
3-masala. Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A>=0 yoki B<-2”
4-masala. Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A va B sonlarning hech bo‘lmaganda bittasi toq son”.
5-masala. Ikkita butun A va B sonlari berilgan. Jumlani rostlikka tekshiring: “A va B sonlarining har ikkalasi ham yoki toq son yoki juft son”.
6-masala. Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “A, B, C sonlarning hech bo‘lmaganda bittasi musbat”.
7-masala. Uchta A, B, C butun sonlar berilgan. Jumlani rostlikka tekshiring: “A, B, C sonlardan faqat ikkitasi musbat son”.
8-masala. Jumlani rostlikka tekshiring: “Berilgan uchta butun sonlarning hech bo‘lmaganda bir jufti o‘zaro qarama-qarshi”.
9-masala. Uch xonali son berilgan. Jumlani rostlikka tekshiring: “Ushbu sonning raqamlari ketma - ket o‘suvchi bo‘lib joylashgan”.
10-masala. Uch xonali son berilgan. Jumlani rostlikka tekshiring: “Ushbu sonning raqamlari ketma - ket o‘suvchi bo’lib joylashgan yoki kamayuvchi ketma - ketlikka ega”.
11-masala. Uch xonali son berilgan. Jumlani rostlikka tekshiring: “Ushbu sonni chapdan o‘qiganda ham, o‘ngdan o‘qiganda ham bir xil”.

12-masala. x, y sonlar berilgan. Jumlani rostlikka tekshiring: “Koordinatalari (x,y) bo‘lgan nuqta koordinata choragining to‘rtinchisida yotadi”.
13-masala. x, y sonlar berilgan. Jumlani rostlikka tekshiring: “Koordinatalari (x,y) bo‘lgan nuqta koordinata choragining ikkinchisida yoki uchunchisida yotadi”.
14-masala. x, y sonlar berilgan. Jumlani rostlikka tekshiring: “Koordinatalari (x,y) bo’lgan nuqta koordinata choragining birinchi yoki uchunchisida yotadi”.
15-masala. a, b, c butun sonlari berilgan. Jumlani rostlikka tekshiring: “a, b, c tomonli uchburchak teng yonli bo‘ladi”.
16-masala. a, b, c butun sonlar berilgan. Jumlani rostlikka tekshiring: “a, b, c tomonli uchburchak to‘g‘ri burchakli”.
17-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinatalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Berilgan maydonlar bir xil rangda”.
18-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinatalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Shoh bir yurishda bir maydondan ikkinchisiga o‘ta oladi”.
19-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinatalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Fil bir yurishda bir maydondan ikkinchisiga o‘ta oladi”.
20-masala. Shaxmat doskasining ikkita turli (x1, y1), (x2, y2) koordinatalari berilgan (1-8 oraliqda yotuvchi butun sonlar). Jumlani rostlikka tekshiring: “Farzin bir yurishda bir maydondan ikkinchisiga o‘ta oladi”.

Topshiriq: 2) Quyidagi chiziqli masalalarni PHP dasturlash tilida tuzing:

1.1-masala. Kvadratning tomoni a berilgan. Uning perimetri P=4*a va yuzasi $S=a^2$ ni hisoblash dasturini tuzing.
1.2-masala. Kubning yon tomoni a berilgan. Uning hajmini $V = a^3$ va to‘la sirti $S=6*a^2$ ni hisoblash dasturini tuzing.
1.3-masala. Paralelepepidning tomonlari a, b, c berilgan. Uning hajmini V = a*b*c va to‘la sirti S = 2*(a*b+b*c+a*c) ni hisoblash dasturini tuzing.
1.4-masala. Nolga teng bo'Imagan ikkita son berilgan. Ularning yig‘indisini, ko‘paytmasini va har birining modulini hisoblash dasturini tuzing.
1.5-masala. Umumiy markazga ega bo‘lgan ikkita aylana radiusi berilgan: R_1,R_2 ($R_1>R_2$).Ularnig yuzalari S_1 va S_2, ularning ayirmasi S_3 ni hisoblash dasturini tuzing. $S_1 = \pi R_1^2$, $S_2= \pi R_2^2$, $S_3 = \pi (R_1^2 - R_2^2)$.
1.6-masala. Aylananing uzunligi L berilgan. Uning radiusi R va yuzasi S ni hisoblang dasturini tuzing. $L = 2* \pi *R$, $S = \pi R^2$, $\pi = 3.14$.
1.7-masala. Aylananing yuzasi S berilgan. Uning diametri D va radiusi R ni hisoblash dasturini tuzing. $L = 2* \pi *R$ $S = \pi R^2$ $\pi = 3.14$
1.8-masala. Sonlar o‘qida A, B, C nuqtalar berilgan. AC va BC kesmalarning uzunligini va kesmalar uzunligining yig‘indisini hisoblash dasturini tuzing.
1.9-masala. Sonlar o‘qida A, B, C nuqtalar berilgan. C nuqta A va B nuqtalar orasida joylashgan. AC va BC kesmalar uzunligining ko‘paytmasini toping va dasturini tuzing.

1.10-masala. To‘g‘ri to‘rtburchakning qarama-qarshi uchlari koordinatlari berilgan. Uning tomonlari koordinata o‘qiga parallel. To‘g‘ri to‘rtburchakning perimetri va yuzasini hisoblash dasturini tuzing.

1.11-masala.. Uchburchakning uchta tomoni uchlari koordinatalari berilgan: (x1,y1), (x2,y2), (x3,y3). Ikki nuqta orasidagi masofani toping dasturini tuzing.

1.12-masala. A, B va C sonlari berilgan. A ning qiymati B ga, B ning qiymati C ga va C ning qiymati A ga almashtirilsin. A, B va C ning yangi qiymatlarini ekranga chiqaruvchi dastur tuzing.

1.13-masala. x ning qiymati berilganda $y=3x^6-6x^2-7$ funksiyaning qiymatini hisoblash dasturini tuzing.

1.14-masala. x ning qiymati berilganda $y=4(x-3)^6-7(x-3)^3+2$ funksiyaning qiymatini hisoblash dasturini tuzing.

1.15-masala. A soni berilgan. A ning A^2, A^3, A^5 ,A^{10}, A^{15} darajalarini aniqlovchi dastur tuzing.

1.16-masala. Temperatura T_F Farengeytda berilgan. Temperatura qiymatini T_C gradus selsiyga o‘tkazuvchi dastur tuzing: $T_C=(T_F-32)*5/9$.

1.17-masala. Temperatura T_C gradus selsiyda berilgan. Temperatura qiymatini T_F Farengeytga o‘tkazuvchi dastur tuzing: $T_C=(T_F-32)*5/9$.

1.18-masala. X kg shokolad A so‘m turadi va Y kg konfet B so‘m turadi. 1 kg shokolad 1 kg konfetdan qancha qimmat turishini aniqlovchi dastur tuzing.

1.19-masala. Qayiqning tezligi V km/soat, daryo oqimining tezligi U km/soat (V>U) Qayiqning daryo oqimi bo‘yicha xarakatlanish vaqti T1, oqimga qarshi T2 Qayiqni yurgan S yo‘lini aniqlovchi dastur tuzing.

1.20-masala. Birinchi avtomabilning tezligi V1 km/soat, ikkinchisiniki V2 km/soat, ular orasidagi masofa S km. Ular biri-biri tomonga harakatlana boshlasa T vaqtdan keyin ular orasidagi masofani aniqlaydigan dastur tuzing.

III. BOB. PHP DA TARMOQLANUVCHI OPERATORLAR

3.1. PHP DA TANLASH OPERATORI IF...ELSE VA ELSEIF

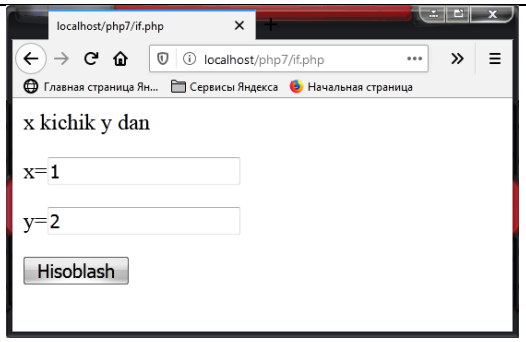
Bu operator **PHP** dasturlash tilidagi muhim operatorlardan biridir. U shartga bog‘liq ravishda kod fragmentini bajarishga mo‘ljallangan. Shart operatori boshqarishni qaysi tarmoqqa uzatishni ta’minlaydi. Shart operatorining umumiy ko`rinishi:

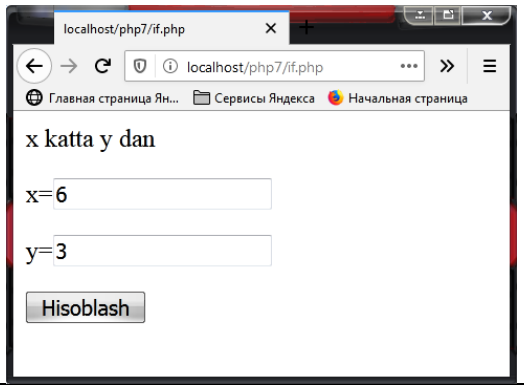
if (<shart>)
{
<operator1>;
}
else
{
<operator2>**;**
}

Shartli operator sintaksisi: ***if*** (<shart>) <operator1> ***else*** <operator2>. Shart **<shart>** ixtiyoriy shartli ifoda bo‘lishi mumkin. Agar u rost bo‘lsa **operator1** bajariladi. Aks xolda **operator2** bajariladi. Bu ixtiyoriy murakkablikdagi tekshirishlar ketma ketligini hosil qilishga imkon beradi. Bu ketma - ketlikda shartli operator to‘la yoki qisqa shaklda bo‘lishi mumkin. Shuning uchun ***if*** va ***else*** operatorlarini bir - biriga mos qo‘yishda xatolik kelib chiqishi mumkin. Tilning sintaksisi bo‘yicha ichki joylashtirilgan shartli operatorlarda har bir **else** eng yaqin **if** ga mos keladi.

Agar **x** teng **1** va **y** teng **2** bo‘lsa ***x kichik y dan*** jumla ekranga chiqariladi, chunki ***else*** eng yaqin ***if*** *ga mos keladi*.

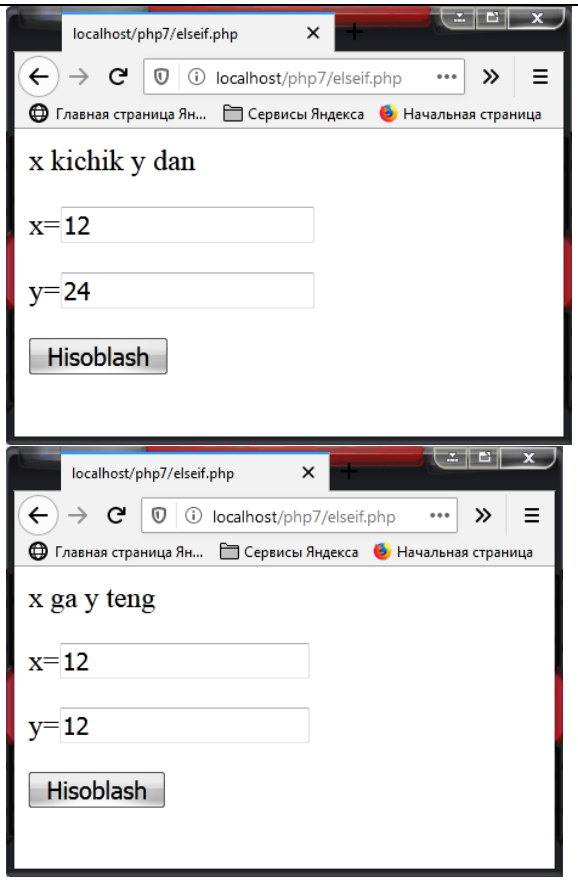
```
<?php
$x =$_POST['x'];
$y =$_POST['y'];
If ($x < $y)
{
echo "x kichik y dan";
}
else
{
echo "x katta y dan";
}
?>
<form action="if.php" method="post">
<p>x=<input name="x" type="text"></p>
<p>y=<input name="y" type="text"></p>
<input value="Hisoblash" type="submit">
</form>
```





Qo‘shimcha shartlarni ***elseif*** operatori yordamida tekshirish mumkin. Operator ***if*** xohlagancha ***elseif*** bloklarni o‘z ichiga olishi mumkin, lekin ***else*** har bir ***if*** operatorida bitta bo‘lishi kerak. Odatda ***if…elseif…else*** konstruktsiyalarda operator ***else*** boshqa shartlar **true** bo‘lmaganda nima qilish kerakligini aniqlaydi.Umuman elseif operatorining ishlatilishi dastur kodini o‘qishni qiyinlashtiradi, shuning uchun switch dan foydalanish maqulroq. PHP shartli operator alternativ sintaksisini ishlatishga imkon beradi. Bu xolda shartli operator qavslarsiz yozilib ***endif*** operatoridan foydalaniladi.

```
<?php
$x =$_POST['x'];
$y =$_POST['y'];
If ($x < $y)
{
echo "x kichik y dan";
}
elseif ($x==$y)
{
echo "x ga y teng";
}
else
{
echo "x katta y dan";
}
?>
<form action="elseif.php" method="post">
<p>x=<input name="x" type="text"></p>
<p>y=<input name="y" type="text"></p>
<input value="Hisoblash" type="submit">
</form>
```



3.2. PHP DA IF…ELSE OPERATORI TADBIQI

2.1-masala. $Ax^2+Bx+C=0$ kvadrat tenglamaning ildizlarini toping.
Yechish. Kiritiladigan ma'lumotlar – bu tenglama koeffitsienti: a – noma'lumning ikkinchi darajasi oldidagi koeffisient; b – noma'lumning birinchi darajasi oldidagi koeffisient; c – ozod had.
Topiladigan natija – x1 va x2 tenglama ildizlari.
Buyruqlar: Diskriminantni hisoblash formulasi: $d=b^2-4ac$
Agar diskirminant natijasi noldan katta bo’lsa, u xolda quyidagi formula bilan tenglama ildizlari topiladi:

$$x1=\frac{-b-\sqrt{d}}{2a};$$

$$x2=\frac{-b+\sqrt{d}}{2a}$$

Agar diskerminant natijasi nolga teng bo‘lsa, u xolda quyidagi formula bilan tenglama ildizlari topiladi:

$$x1 = \frac{-b}{2a}$$

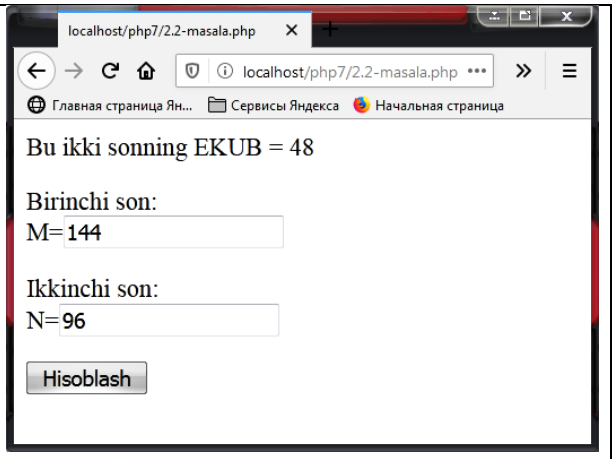
Agar diskerminant natijasi noldan kichik bo’lsa, bu tenglamaning haqiqiy ildizi yo‘qligini bildiradi.

```
<?php
$a=$_POST['a'];
$b=$_POST['b'];
$c=$_POST['c'];
$d=pow($b,2)-4*$a*$c;
if ($d>0)
{
$x1=(-$b-sqrt($d))/(2*$a);
$x2=(-$b+sqrt($d))/(2*$a);
echo "<b>x1=</b>$x1 <br>
<b>x2=</b>$x2";
}
elseif ($d==0)
{
$x1=-$b/(2*$a);
echo "<b>Tenglama bitta ildizga ega
x1=</b>$x1";
}
else
{
echo "<b>Diskreminant 0 dan kichik echim
mavjud emas!</b>";
}
?>
<form action="2.1-masala.php"
method="post">
<p>a=<input name="a" type="text"></p>
<p>b=<input name="b" type="text"></p>
<p>c=<input name="c" type="text"></p>
<input  type="submit" value="Hisoblash">
</form>
```



2.2-masala. Ikki butun musbat son M va N larning eng katta umumiy bo‘luvchisi (EKUB) ni aniqlang.

```
<?php
$M= $_POST['M'];
$N= $_POST['N'];
$X=$M;$Y=$N;
A:
if ($X==$Y) goto B;
if ($X>$Y) $X=$X-$Y;
if ($X<$Y) $Y=$Y-$X;
goto A;
B: echo "Bu ikki sonning EKUB = $X";
?>
<form action="2.2-masala.php"
method="post">
<p>Birinchi son: <br>M=<input name="M"
type="text"></p>
<p>Ikkinchi son:<br>N=<input name="N"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.3-masala. Ikkita X va Y sonlarning kattasini tanlash (EKT) dasturini tuzing.

```
<?php
$X= $_POST['X'];
$Y= $_POST['Y'];
if ($X>$Y)
{
echo "Bu sonlarning eng kattasi = $X";
}
elseif ($X==$Y)
{
echo "Bu sonlar bir-biriga teng!";
}
else
{
echo "Bu sonlarning eng kattasi =$Y";
}
?>
<form action="2.3-masala.php" method="post">
<p>Birinchi son: <br>X=<input name="X"
type="text"></p>
<p>Ikkinchi son:<br>Y=<input name="Y"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

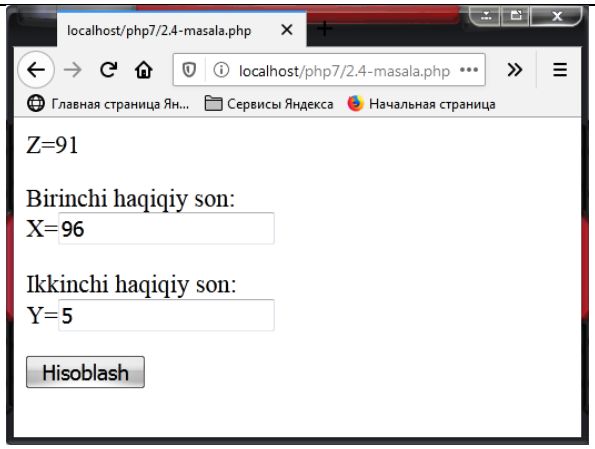


2.4-masala. X va Y haqiqiy sonlar berilgan. Z ni hisoblang:

$$Z=\begin{cases} X-Y,\ agar\ \ X>Y\ \ bo'lsa \\ X+1,\ agar\ \ X\le Y\ \ bo'lsa \end{cases}$$

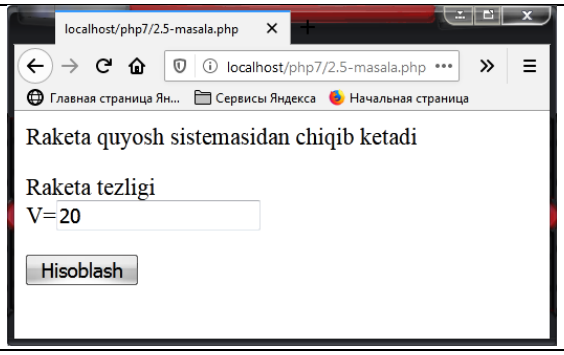
```
<?php
$X= $_POST['X'];
$Y= $_POST['Y'];
if ($X>$Y)
{
$Z=$X-$Y;
echo "Z=$Z";
}

elseif ($X<=$Y)
{
$Z=$X+1;
echo "Z=$Z";
}
?>
<form action="2.4-masala.php"
method="post">
<p>Birinchi haqiqiy son:<br>X=<input
name="X" type="text"></p>
<p>Ikkinchi haqiqiy son:<br>Y=<input
name="Y" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.5-masala. Raketa ϑ (km/soat) tezlik bilan yer ekvatoridagi nuqtadan yerning quyosh atrofidagi orbitasi bo‘ylab uchiriladi. Raketani uchirish natijasi qanday bo‘ladi?. Yechish. Ma’lumki, agar $\vartheta<7{,}8\ \dfrac{\text{km}}{\text{s}}$; bo‘lsa, raketa yerga qaytib tushadi. Agar $7{,}8<\vartheta<11{,}2$ bo‘lsa, raketa yer yo‘ldoshiga aylanadi; Agar $11{,}2<\vartheta<16{,}4$ bo‘lsa, raketa quyosh yo‘ldoshiga aylanadi; Agar $\vartheta>16{,}4$ bo‘lsa, raketa quyosh sistemasidan chiqib ketadi.

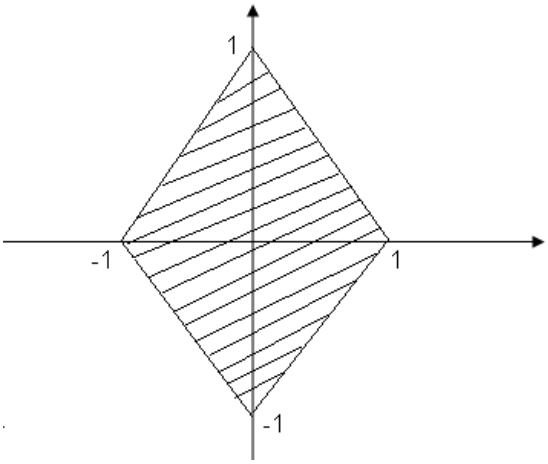
```
<?php
$V= $_POST['V'];
if ($V<7.8)
{
echo "Raketa yerga qaytib tushadi";
}
if (($V>7.8 )and ($V<11.2))
{
```



```
echo "Raketa yer yo‘ldoshiga aylanadi";
}
if (($V>11.2 )and ($V<16.4))
{
echo "Raketa  quyosh yo‘ldoshiga aylanadi";
}
if ($V>16.4)
{
echo "Raketa  quyosh sistemasidan chiqib
ketadi";
}
?>
<form action="2.5-masala.php"
method="post">
<p>Raketa tezligi <br>V=<input name="V"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

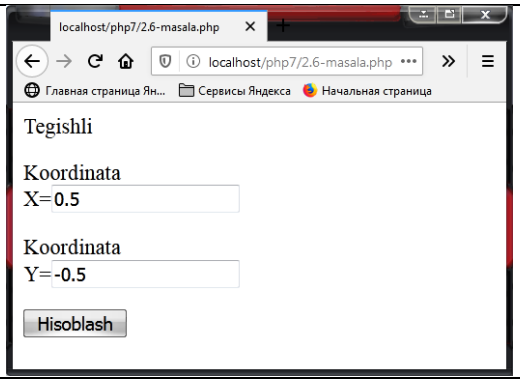
2.6-masala. Koordinatalari x va y ga teng bo‘lgan nuqta 9-rasmda tasvirlangan tekislikdagi shaklga tegishlimi?

Yechish. Koordinatalari quyidagi shatrlarni qanoatlantiradigan nuqtalar berilgan shaklga tegishli bo‘ladi: $|x|+|y|\le 1$



9-rasm

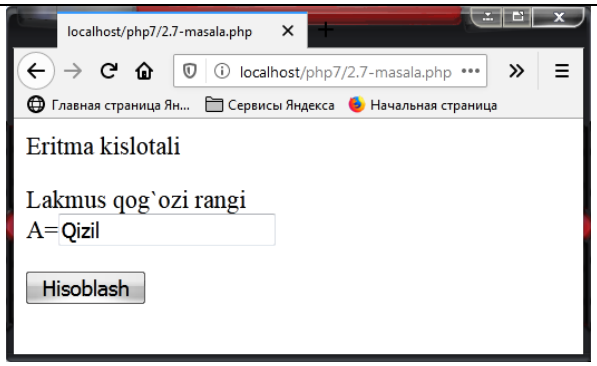
```
<?php
$X= $_POST['X'];
$Y= $_POST['Y'];
if (($X>-1) and ($X<1) and ($Y>-1) and
($Y<1) )
{
echo "Tegishli";
}
```



```
Else
{
echo "Tegishli emas ";
}
?>
<form action="2.6-masala.php"
method="post">
<p>Koordinata <br>X=<input name="X"
type="text" ></p>
<p>Koordinata <br>Y=<input name="Y"
type="text"></p>
<input  type="submit" value="Hisoblash">
</form>
```

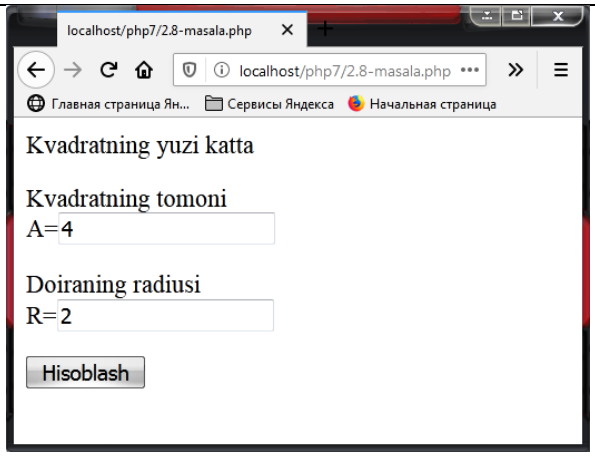
2.7-masala. Lakmus qog‘ozidan foydalanib eritma muhitini aniqlang.
Yechish. Ma’lumki, eritmaga tushirilgan lakmus qog‘ozi qizil bo‘lsa, eritma kislotali; Ko‘k bo‘lsa, ishqorli; aks holda eritma neytral bo‘ladi.

```
<?php
$A= $_POST['A'];
if ($A=='Qizil')
{
echo "Eritma kislotali";
}
elseif ($A=='Ko‘k' )
{
echo "Eritma ishqorli";
}
else
{
echo "Eritma neytral";
}
?>
<form action="2.7-masala.php"
method="post">
<p>Lakmus qog`ozi rangi <br>A=<input
name="A" type="text"></p>
<input type="submit" value="Hisoblash">
</form
```



2.8-masala. Agar kvadratning tomoni A, doiraning radiusi R ga teng bo‘lsa, kvadrat va doiraning yuzlarini solishtirib kattasini aniqlang.
Yechish. Kvadratning yuzi $s = a^2$, doiraning yuzi $k = \pi r^2$ formula yordamida aniqlanadi.

```
<?php
$A= $_POST['A'];
$R= $_POST['R'];
$S=$A*$A;
$C=pi()*$R*$R;
if ($S>$C)
{
echo "Kvadratning yuzi katta";
}
else
{
echo "Doiraning yuzi katta";
}
?>
<form action="2.8-masala.php"
method="post">
<p>Kvadratning tomoni <br>A=<input
name="A" type="text"></p>
<p>Doiraning radiusi<br>R=<input
name="R" type="text" ></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

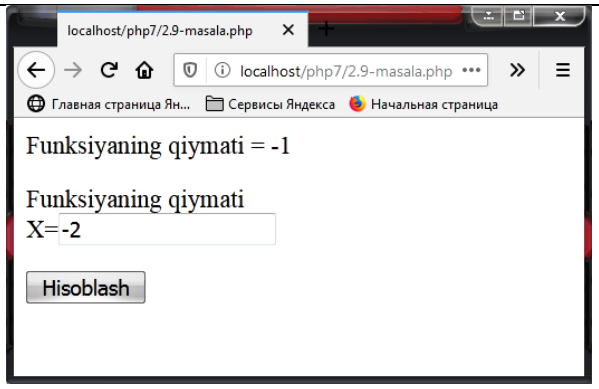


2.9-masala. Quyidagi funksiyani hisoblang: x>0 bo‘lganda 1 ga teng; x=0 da nolga teng; x<0 da -1 ga teng.

Yechish. Berilgan funksiya $y = sign(x)$ bilan belgilanadi.

$$signx = \begin{cases} 1, \ agar \quad x > 0 \\ 0, \ agar \quad x = 0 \\ -1, \ agar \ x < 0 \end{cases}$$

```
<?php
$X= $_POST['X'];
if ($X>0)
{
echo "Funksiyaning qiymati = 1";
}
elseif ($X==0)
{
echo "Funksiyaning qiymati = 0";
}
else
{
echo "Funksiyaning qiymati = -1";
```

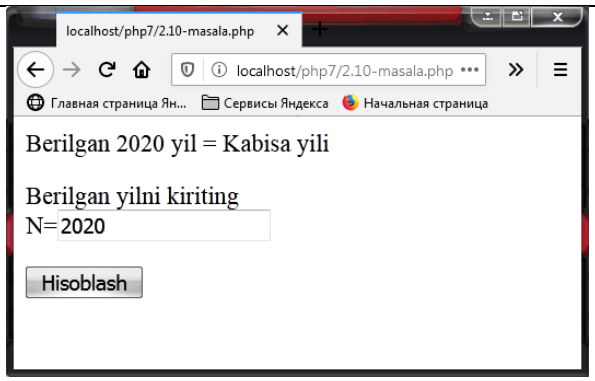


```
}
?>
<form action="2.9-masala.php"
method="post">
<p>Funksiyaning qiymati <br>X=<input
name="X" type="text" ></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

2.10-masala. Berilgan N sonli yil kabisa yili bo‘lishi yoki bo‘lmasligini aniqlang. Agar N soni 100 ga karrali son bo‘lmasa va uning oxirgi ikki raqami 4 ga karrali son bo‘lsa, u holda N-yil kabisa yilidir. Agar N soni 100 karrali bo‘lsa,u holda N soni 400 ga karrali bo‘lgandagina mazkur yil kabisa yili bo‘ladi.

Yechish. Ushbu $w = n - floor(\frac{n}{u}) * u$ qoldiqni topish formulasini qism dasturga kiritib, undan n sonni u=100, u=400 va u=4 ga bo’lish natijasida hosil bo‘lgan qoldiqni topishda uch marta foydalanamiz.

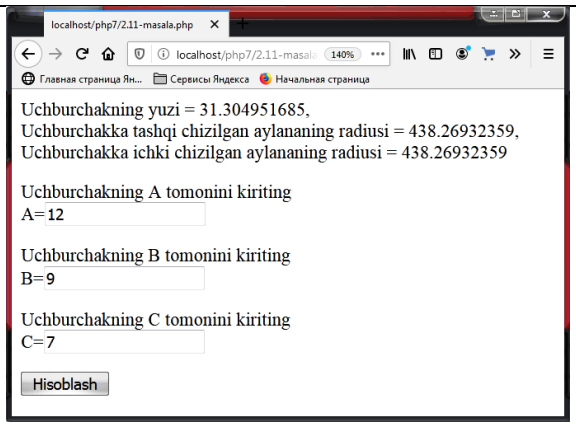
```
<?php
$N= $_POST['N'];
$Y=$N%100;
$Z=$N%10;
if (($Y!=0) and ($Z%4==0))
{
echo "Berilgan $N yil = Kabisa yili";
}
else
{
echo "Berilgan $N yil = Kabisa yili emas";
}
?>
<form action="2.10-masala.php"
method="post">
<p>Berilgan yilni kiriting <br>N=<input
name="N" type=”text”></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



2.11-masala. A, B, C sonlar mos ravishda uchta kesmaning uzunliklarini ifodalaydi. Agar kesmalar uchburchakning tomonlarini ifodalasa, uchburchakning yuzi S, uchburchakka tashqi va ichki chizilgan aylanalarning radiuslari r1 va r2 larni toping.

Yechish. Agar $p=\frac{a+b+c}{2}$ deb belgilash kiritsak, uchburchakning mavjud bo'lish sharti $p\cdot(p-a)\cdot(p-b)\cdot(p-c)>0$ ko'rinishda yoziladi. Uchburchakning yuzi $s=\sqrt{p\cdot(p-a)\cdot(p-b)\cdot(p-c)}$, tashqi aylananing radiusi $r_1=\frac{a\cdot b\cdot c}{4\cdot s}$, ichki aylananing radiusi esa $r_2=\frac{s}{p}$ formula yordamida aniqlanadi.

```
<?php
$A= $_POST['A'];
$B= $_POST['B'];
$C= $_POST['C'];
if (($A+$B)>$C) and (($A+$C)>$B) and
(($B+$C)>$A))
{
$p=($A+$B+$C)/2;
$S=sqrt($p*($p-$A)*($p-$B)*($p-$C));
$r1=($A*$B*$C)/4*$S;
$r2=$S*$p;
echo "Uchburchakning yuzi = $S,
<br>Uchburchakka tashqi chizilgan
aylananing radiusi = $r2,<br>Uchburchakka
ichki chizilgan aylananing radiusi = $r2";
}
else
{
echo "Berilgan sonlar bilan uchburchak yasab
bo'lmaydi!";
}
?>
<form action="2.11-masala.php"
method="post">
<p>Uchburchakning A tomonini kiriting
<br>A=<input name="A" type="text" ></p>
<p>Uchburchakning B tomonini kiriting
<br>B=<input name="B" type="text" ></p>
<p>Uchburchakning C tomonini kiriting
<br>C=<input name="C" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.12-masala. Ax+B=0 tenglamani yeching.

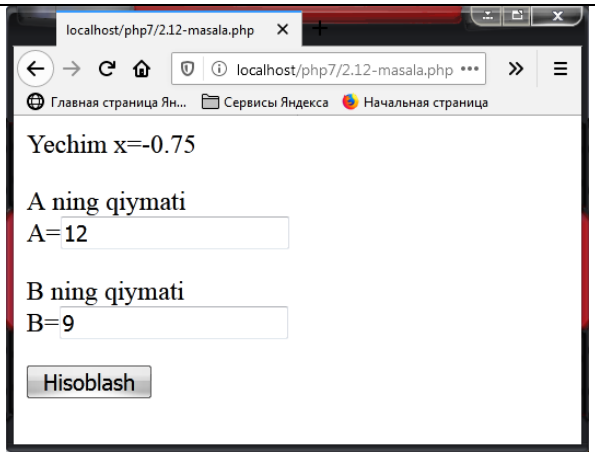
Yechish. Ma'lumki, $a\cdot x+b=0$ tenglamaning yechimi quyidagicha aniqlanadi:

1). A=0, b=0 bo'lsa, tenglama cheksiz ko'p yechimga ega;

2). A=0, $b\neq 0$ bo'lsa, tenglama yechimga ega emas;

3). $A \neq 0$, bo‘lsa, tenglama $x = -\frac{b}{a}$ yagona yechimga ega;

```
<?php
$A= $_POST['A'];
$B= $_POST['B'];
if (($A==0) and ($B==0))
{
echo "Tenglama cheksiz ko‘p yechimga ega";
}
elseif  (($A==0) and ($B!=0))
{
echo "Tenglama yechimga ega emas";
}
else
{
$x=-$B/$A;
echo "Yechim x=$x";
}
?>
<form action="2.12-masala.php"
method="post">
<p> A ning qiymati <br>A=<input name="A"
type="text"></p>
<p> B ning qiymati <br>B=<input name="B"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



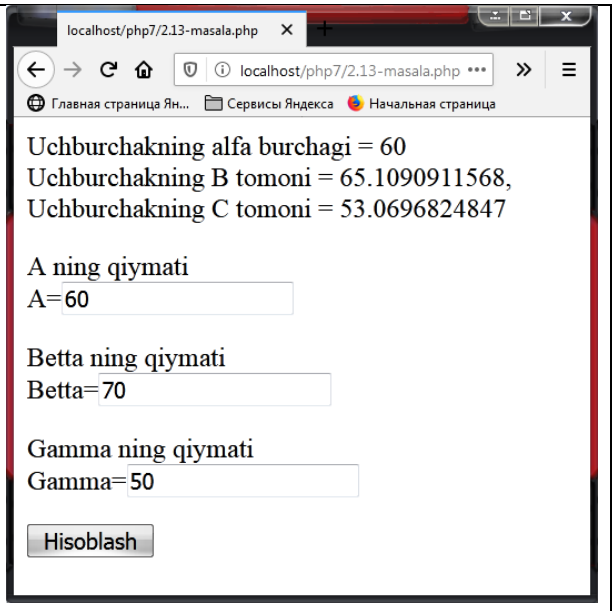
2.13-masala. Bir tomoni va unga yopishgan ikkita burchagi berilgan uchburchakning uchinchi burchagi va qolgan ikki tomonini aniqlang.

Yechish. Uchburchakning a tomoni va b_1, c_1 burchaklari gradus o‘lchovida berilgan.a_1 burchakni $a_1 = 180 - (b1 + c1)$ formula yordamida aniqlaymiz. a_1, b_1, c_1 burchaklarning radian o‘lchovidagi kattaligini a_2, b_2, c_2 bilan belgilasak, $a_2 = \frac{\pi \cdot a_1}{180}$; $b_2 = \frac{\pi \cdot b_1}{180}$; $c_2 = \frac{\pi \cdot c_1}{180}$; formulalar o’rinli bo‘ladi. Bunda $\pi = 3{,}14159$

b va c tomonlarni sinuslar teoremasiga asosan aniqlaymiz: $b = \frac{a \cdot \sin b_2}{\sin a_2}$; $c = \frac{a \cdot \sin c_2}{\sin a_2}$;

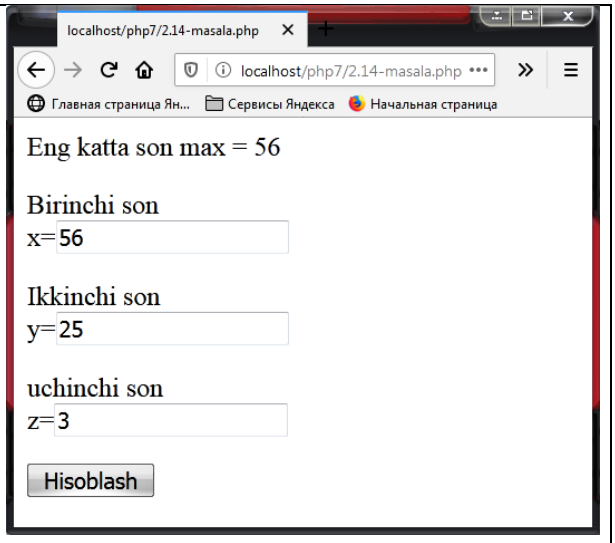
```
<?php
$A= $_POST['A'];
$Betta= $_POST['Betta'];
$Gamma= $_POST['Gamma'];
```

```
define ('Pi','3.14');
$alfa=180-($Betta+$Gamma);
$alfa2=(Pi*$alfa)/180;
$Betta2=(Pi*$Betta)/180;
$Gamma2=(Pi*$Gamma)/180;
$B=($A*sin($Betta2))/sin($alfa2);
$C=($A)*sin($Gamma2)/sin($alfa2);
echo "Uchburchakning alfa burchagi =
$alfa<br>Uchburchakning B tomoni =
$B,<br>Uchburchakning C tomoni = $C";
?>
<form action="2.13-masala.php"
method="post">
<p> A ning qiymati <br>A=<input name="A"
type="text"></p>
<p> Betta ning qiymati <br>Betta=<input
name="Betta" type="text"></p>
<p> Gamma ning qiymati
<br>Gamma=<input name="Gamma"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.14-masala. Uchta sonning berilgan, ularninig eng kattasi (EKT) ni toping.

```
<?php
$x= $_POST['x'];
$y= $_POST['y'];
$z= $_POST['z'];
if ($x>$y)
$max=$x;
else
$max=$y;
if ($max>$z)
$max=$max;
else
$max=$z;
echo "Eng katta son max = $max";
?>
<form action="2.14-masala.php"
method="post">
<p> Birinchi son<br>x=<input name="x"
type="text"></p>
<p> Ikkinchi son<br>y=<input name="y"
type="text"></p>
```

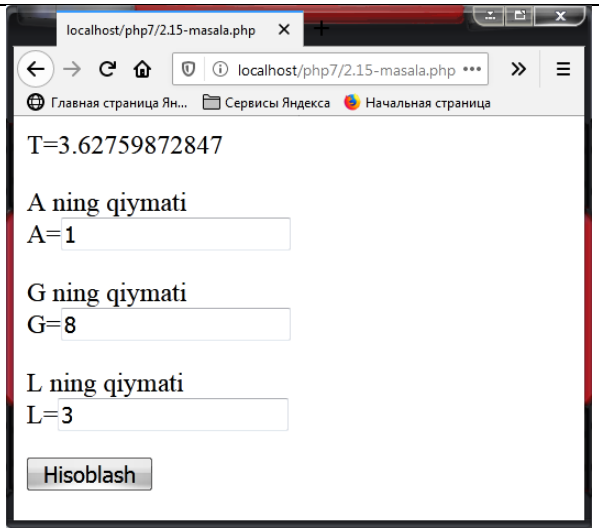


uchinchi son z=<input name="z" type="text"> <input type="submit" value="Hisoblash"> </form>	

2.15-masala. Uzunligi 1 ga teng matematik mayatnikning osilgan nuqtasi qo‘zg‘almas yoki yuqoriga yoki pastga tezlanish bilan harakatlangan hollarda uning tebranish davri aniqlansin.

Yechish. Agar mayatnik osilgan nuqta qo‘zg‘almas bo‘lsa, $T = 2 \cdot \pi \cdot \sqrt{\frac{l}{g}}$; mayatnik osilgan nuqta yuqoriga a tezlanish bilan harakatlansa, $T_1 = 2 \cdot \pi \cdot \sqrt{\frac{l}{g+a}}$; mayatnik osilgan nuqta pastga a tezlanish bilan harakatlansa, $T_2 = 2 \cdot \pi \cdot \sqrt{\frac{l}{a-g}}$; formulalar o‘rinli bo‘ladi. Bunda $\pi = 3{,}14159$, g=9,81 deb olish mumkin. Agar a=g bo‘lsa, mayatnik vaznsizlik holatida bo‘ladi va bu holatda mayatnik tebranmaydi.

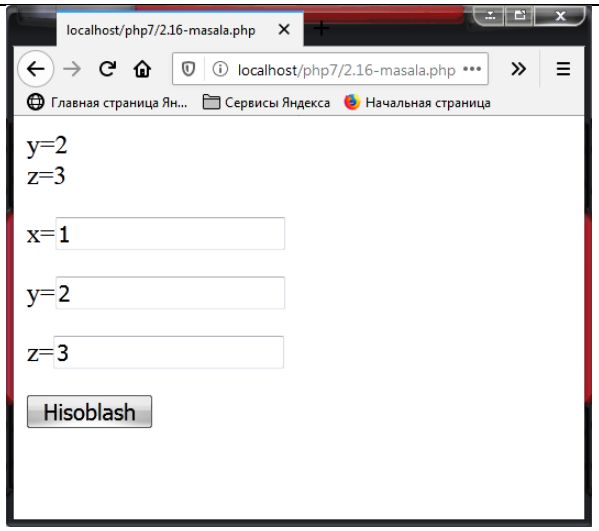
```
<?php
$A= $_POST['A'];
$G= $_POST['G'];
$L= $_POST['L'];
if ($A==0)
{
$T=2*pi()*sqrt($L/$G);
echo "T=$T";
}
else
{
if ($A==$G)
echo "Mayatnik vazinsiz holatda bo‘ladi";
}
if ($A<$G)
{
$T1=2*pi()*sqrt($L/($G+$A));
echo "T1=$T1;
}
else
{
$T2=2*pi()*sqrt($L/($G-$A));
echo "T2=$T2;
}
?>
<form action="2.15-masala.php"
method="post">
```



```
<p> A ning qiymati <br>A=<input name="A"
type="text"></p>
<p> G ning qiymati <br>G=<input name="G"
type="text"></p>
<p> L ning qiymati <br>L=<input name="L"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

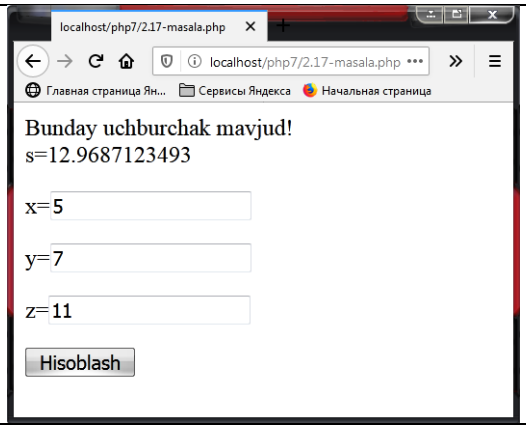
2.16-masala. Uchta X, Y, Z haqiqiy sonlar berilgan. Bu sonlardan qaysi biri (1,5) intervalga tegishli ekanligini aniqlang.
Yechish. (1,5) intervalga tegishli sonlarni aniqlashni qism-dastur yordamida kiritamiz.

```
<?php
$x= $_POST['x'];
$y= $_POST['y'];
$z= $_POST['z'];
if ($x>1 && $x<5)
echo "x=$x<br>";
 if ($y>1 && $y<5)
echo "y=$y<br>";
 if ($z>1 && $z<5)
echo "z=$z";
?>
<form action="2.16-masala.php"
method="post">
<p> x=<input name="x" type="text"></p>
<p> y=<input name="y" type="text"></p>
<p> z=<input name="z" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.17-masala. Uchta X, Y, Z musbat sonlar berilgan. Tomonlari X, Y, Z ga teng uchburchak mavjudmi? Agar mavjud bo‘lsa bu uchburchakning yuzini toping.

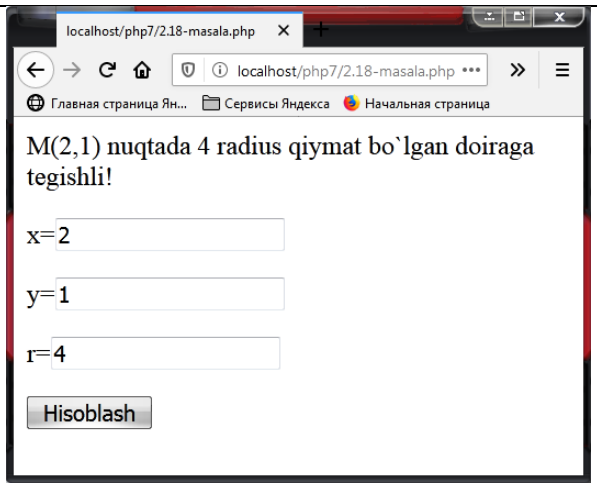
```
<?php
$x= $_POST['x'];
$y= $_POST['y'];
$z= $_POST['z'];
if ((($x+$y)>$z) && (($x+$z)>$y) &&
(($z+$y)>$x))
{
echo "Bunday uchburchak mavjud!<br> ";
$p=($x+$y+$z)/2;
```



```
$s=sqrt($p*($p-$x)*($p-$y)*($p-$z));
echo "s=$s";
}
else
echo "Bunday uchburchak mavjud emas! ";
?>
<form action="2.17-masala.php"
method="post">
<p> x=<input name="x" type="text"></p>
<p> y=<input name="y" type="text"></p>
<p> z=<input name="z" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

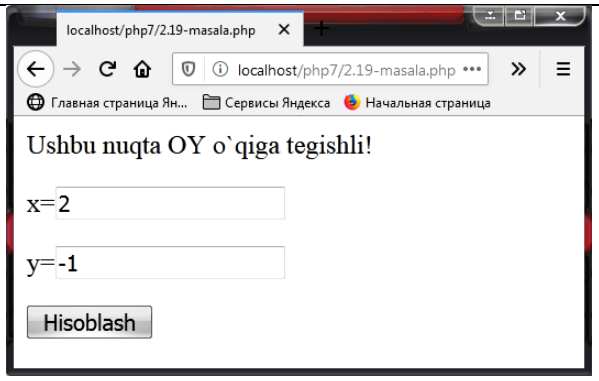
2.18-masala. Koordinatalari berilgan M(X,Y) nuqtaning radiusi R ga teng va markazi koordinatalar boshida bo‘lgan doiraga tegishli bo‘lishini aniqlang.

```
<?php
$x= $_POST['x'];
$y= $_POST['y'];
$r= $_POST['r'];
if (($x*$x+$y*$y)>$r*$r)
{
echo "M($x,$y) nuqtada $r radius bo‘lgan
doiraga tegishli emas!";
}
else
echo "M($x,$y) nuqtada $r radius qiymat
bo‘lgan doiraga tegishli! ";
?>
<form action="2.18-masala.php"
method="post">
<p> x=<input name="x" type="text"></p>
<p> y=<input name="y" type="text"></p>
<p> r=<input name="r" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



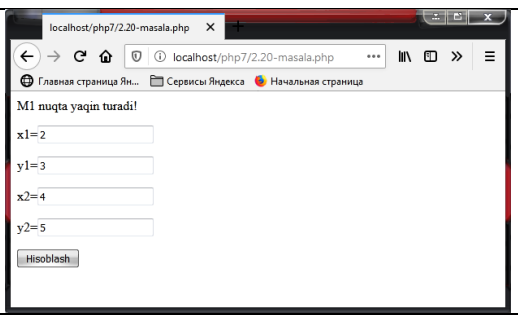
2.19-masala. Koordinatalari berilgan M(X,Y) nuqtaning koordinata tekisligining qaysi choragida ekanligini aniqlaydigan dastur tuzing.

```
<?php
$x= $_POST['x'];
$y= $_POST['y'];
if ($x<0 && $y<0)
$k=3;
if (($x<0 || $x>0) && ($y==0))
$k=0;
if (($x<0) && ($y>0))
$k=2;
if (($x>0) && ($y<0))
$k=4;
if (($x>0) && ($y>0))
$k=1;
if (($x=0) && (($y<0) || ($y>0)))
$k=5;
if ($k=0)
{
echo "Ushbu nuqta OX o‘qiga tegishli!";
}
elseif  ($k=5)
{
echo "Ushbu nuqta OY o‘qiga tegishli! ";
}
else
{
echo "Ushbu nuqta $k -chorakka tegishli! ";
 }
?>
<form action="2.19-masala.php"
method="post">
<p> x=<input name="x" type="text"></p>
<p> y=<input name="y" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```



2.20-masala. Koordinatalari berilgan ikkita M1(X1,Y1) va M2(X2,Y2) nuqtalarning qaysi biri koordinata boshiga yaqin turishini aniqlash dasturi.

```
<?php
$x1= $_POST['x1'];
$y1= $_POST['y1'];
$x2= $_POST['x2'];
$y2= $_POST['y2'];
$r1=sqrt($x1*$x1+$y1*$y1);
$r2=sqrt($x2*$x2+$y2*$y2);
```



```
if ($r1>$r2)
echo "M2 nuqta yaqin turadi! ";
elseif ($r1<$r2)
echo "M1 nuqta yaqin turadi! ";
else
echo "Ikkala nuqta bir xil uzoqlikda turadi!";
?>
<form action="2.20-masala.php"
method="post">
<p> x1=<input name="x1" type="text"></p>
<p> y1=<input name="y1" type="text"></p>
<p> x2=<input name="x2" type="text"></p>
<p> y2=<input name="y2" type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

3.4. PHP DA VARIANTLI SWITCH TANLASH OPERATORI

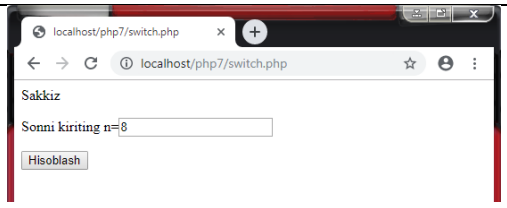
Variantli tanlash ***switch*** multitanlash tashkil qilishning eng qulay usulidir. Pereklyuchatel (Switch operatorining) sintaksisi quyidagicha:

***switch*(qiymat)** // tanlash *ifodasi*
{
  ***case* qiymat1**: // *konstantali ifoda 1*
    operator1; // operatorlarning bloki
  break;
  ***case* qiymat2**: // *konstantali ifoda 2*
    operator2;
  break;
  default:
    operator;
}

Boshqaruvchi struktura **switch** boshqarishni **case** bilan belgilangan operatorlar ichida, konstantali ifodasining qiymati tanlash ifodasi qiymati bilan teng operatorga uzatadi. Agar tanlash ifodasi qiymati konstantali ifodalarning birortasiga teng bo‘lmasa **default** bilan belgilangan operatorga o‘tiladi. Har bir variantli tanlash operatorida bittadan ortiq **default** bo‘lishi mumkin emas, lekin u umuman qatnashmasligi ham mumkin.

Variantli tanlash operatoridan foydalanilgan dasturga misol keltiramiz.

```
<?php
$son=$_POST['n'];
switch($son)
{
case 1:
```



```
echo ("Bir "); break;
case 2:
echo ("Ikki "); break;
case 3:
echo ("Uch"); break;
case 4:
echo ("To‘rt"); break;
case 5:
echo ("Besh"); break;
case 6:
echo ("Olti"); break;
case 7:
echo ("Etti"); break;
case 8:
echo ("Sakkiz"); break;
case 9:
echo ("To`qqiz");
break;
default:
echo ("1 dan 9 gacha sonlar kiriting");
}
?>
<form action="switch.php" method="post">
<p> Sonni kiriting n=<input name="n"
type="text"></p>
<input type="submit" value="Hisoblash">
</form>
```

Shartli operatordagi kabi variantli tanlash operatorlari uchun ixtiyoriy darajadagi joylashishlarga yo‘l quyiladi.

Keltirilgan dasturda ***break*** operatori ishlatilgan bo‘lib, bu operator variantli tanlash operatoridan chiqishga imkon beradi. Agar ***break*** operatorlarini har bir raqam chiqarilishidan keyin qo‘yilsa, brouzer oynasida faqat bitta toq son nomini ko‘ramiz.

Ko‘rganimizdek ***switch*** operatoridan keyin murakkab operator keltirilgan lekin bu shart emas –***switch*** dan so‘ng ***case*** xizmatchi so‘zi bilan belgilangan ixtiyoriy operator kelishi mumkin.

Eslatma: murakkab operator, bu figurali qavsga olingan ixtiyoriy operatorlar ketma - ketligidir.

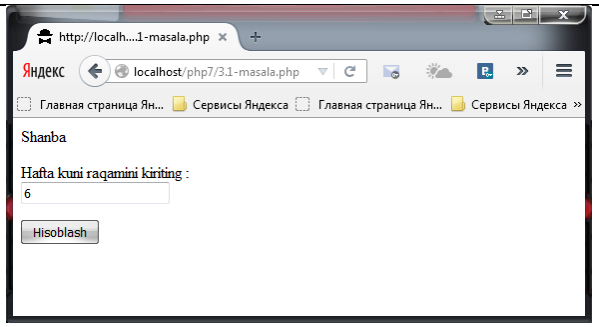
PHP da ***case*** belgilari sifatida literallar emas o‘zgaruvchilar ham kelishi mumkin. Lekin ***case*** belgilari sifatida PHP da massivlar va ob’ektlardan foydalanilmaydi.

3.4. PHP DA VARIANTLI TANLASH ALGORITMLARIGA DASTUR TUZISH

3.1-masala. 1-7 gacha bo‘lgan butun sonlar berilgan. Kiritilgan songa mos ravishda

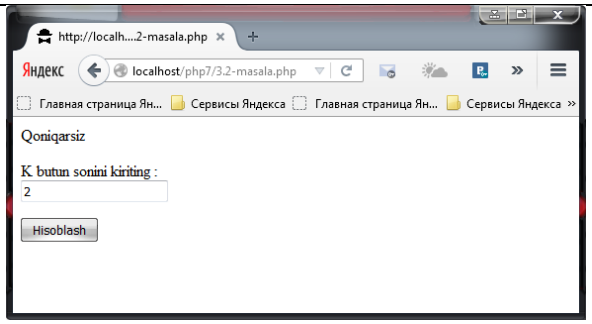
hafta kunlarini so‘zda ifodalovchi dastur tuzing. (1-Dushanba.2-Chorshanba....h.k)

```
<?php
$k=$_POST['k'];
switch ($k)
{
  case 1 :
   echo "Dushanba";
    break;
  case 2 :
    echo "Seshanba";
    break;
   case 3 :
   echo "Chorshanba";
    break;
  case 4 :
    echo "Payshanba";
    break;
   case 5 :
   echo "Juma";
    break;
  case 6 :
    echo "Shanba";
    break;
   case 7 :
   echo "Yakshanba";
    break;
  default:
    echo "1 dan 7 gacha bo‘gan sonlarni
kiriting!";
    break;
}
?>
<form action="3.1-masala.php"
method="Post">
<p>Hafta kuni raqamini kiriting : <br><input
name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```



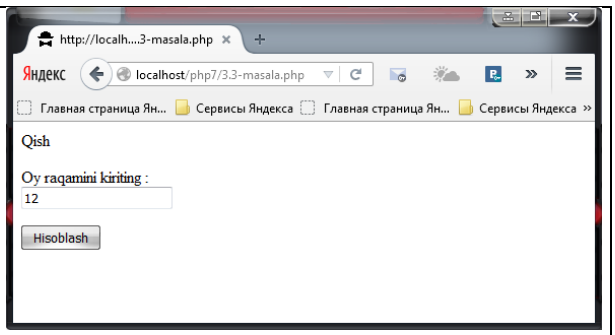
3.2-masala. K butun soni berilgan. Baho natijalarini chiqaruvchi dasturini tuzing.(1-yomon, 2-qoniqarsiz, 3- qoniqarli, 4-yahshi, 5-a’lo). Agar к soni 1-5 gacha oraliqqa tegishli bo‘lmasa, u holda “xato 1 dan 5 gacha raqam kiriting!”” matni chiqarilsin.

```
<?php
$k=$_POST['k'];
switch ($k)
{
  case 1 :
   echo "Yomon";
    break;
  case 2 :
    echo "Qoniqarsiz";
    break;
   case 3 :
   echo "Qoniqarli";
    break;
  case 4 :
    echo "Yaxshi";
    break;
   case 5 :
   echo "A`lo";
    break;
  default:
    echo "1 dan 5 gacha raqam kiriting!";
    break;
}
?>
<form action="3.2-masala.php"
method="Post">
<p>K butun sonini kiriting : <br><input
name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```



3.3-masala. Oy raqami berilgan. Kiritilgan oy qaysi faslga tegishli ekanligini chiqaruvchi dastur tuzing. (Masalan: 2 chi oy, “qish")

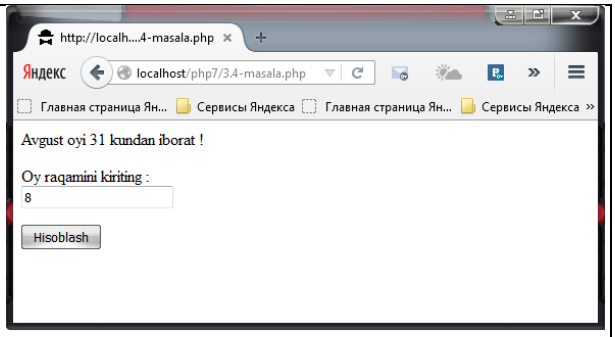
```
<?php
$k=$_POST['k'];
switch ($k)
{
  case 1 :
   echo "Qish";
    break;
  case 2 :
    echo "Qish";
    break;
```



```
   case 3 :
   echo "Bahor";
    break;
  case 4 :
    echo "Bahor";
    break;
   case 5 :
   echo "Bahor";
    break;
  case 6 :
    echo "Yoz";
    break;
   case 7 :
   echo "Yoz";
    break;
 case 8 :
   echo "Yoz";
    break;
  case 9 :
    echo "Kuz";
    break;
   case 10 :
   echo "Kuz";
    break;
  case 11 :
    echo "Kuz";
    break;
   case 12 :
   echo "Qish";
    break;
  default:
    echo "Bunday oy raqami yo`q!";
    break;
}
?>
<form action="3.3-masala.php"
method="Post">
<p>Oy raqamini kiriting : <br><input
name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.4-masala. Oy raqami berilgan. Shu oyda nechta kun borligini aniqlovchi dastur tuzing.

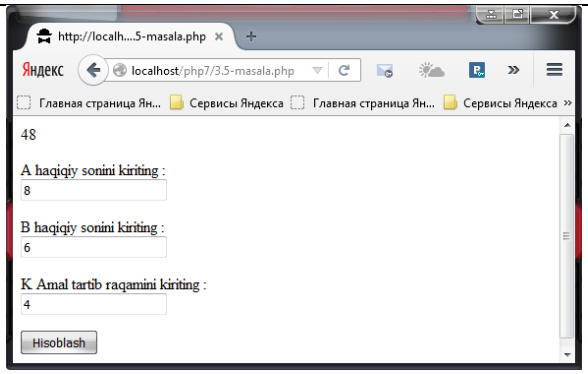
```php
<?php
$k=$_POST['k'];
switch ($k)
{
  case 1 :
   echo "Yanvar oyi 31 kundan iborat !";
    break;
  case 2 :
    echo "Fevral oyi 28 kundan iborat! <br>
Ammo Fevral oyi Kabisa yilida 29 kundan
iborat bo‘ladi!";
    break;
   case 3 :
   echo "Mart oyi 31 kundan iborat !";
    break;
  case 4 :
    echo "Aprel oyi 30 kundan iborat !";
    break;
   case 5 :
   echo "May oyi 31 kundan iborat !";
    break;
  case 6 :
    echo "Iyun oyi 30 kundan iborat !";
    break;
   case 7 :
   echo "Iyul oyi 31 kundan iborat !";
    break;
 case 8 :
   echo "Avgust oyi 31 kundan iborat !";
    break;
  case 9 :
    echo "Sentabr oyi 30 kundan iborat !";
    break;
   case 10 :
   echo "Oktabr oyi 31 kundan iborat !";
    break;
  case 11 :
    echo "Noyabr oyi 30 kundan iborat !";
    break;
   case 12 :
   echo "Dekabr oyi 31 kundan iborat !";
    break;
  default:
    echo "Bunday oy raqami yo`q !!!";
    break;
```



```
}
?>
<form action="3.4-masala.php"
method="Post">
<p>Oy raqamini kiriting : <br><input
name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.5-masala. A, B haqiqiy butun soni va K-amal tartib raqami berilgan. A va B sonlari ustida arifmetik amallar bajaruvchi dastur tuzing. K-amal quyidagi qiymatlarni qabul qiladi: 1-qo‘shish, 2-ayirish, 3-bo‘lish, 4- ko‘paytirish.

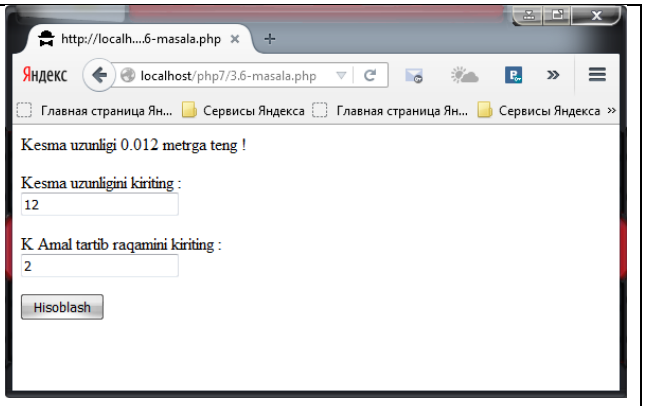
```
<?php
$A=$_POST['A'];
$B=$_POST['B'];
$k=$_POST['k'];
switch ($k)
{
  case 1 :
   echo $A+$B;
    break;
  case 2 :
    echo $A-$B;
    break;
   case 3 :
   echo $A/$B;
    break;
  case 4 :
    echo $A*$B;
    break;
  default:
    echo "1 dan 4 gacha raqam kiriting!";
    break;
}
?>
<form action="3.5-masala.php"
method="Post">
<p>A haqiqiy sonini kiriting : <br><input
name="A" ></p>
<p>B haqiqiy sonini kiriting : <br><input
name="B" ></p>
<p>K Amal tartib raqamini kiriting :
<br><input name="k" ></p>
```



<input name="submit" type="Submit" value="Hisoblash"> </form>	

3.6-masala Uzinlik birliklari quyidagi tartibda berilgan. 1-detsimetr, 2-kilometr, 3-metr, 4-millimeter, 5- santimetr. Uzunlik birligini bildiruvchi son berilgan (1 - 5 oraliqda) va shu birlikdagi kesma uzunligi berilgan (haqiqiy son). Kesmaning uzunligini metrlarda ifodalovchi dastur tuzing.

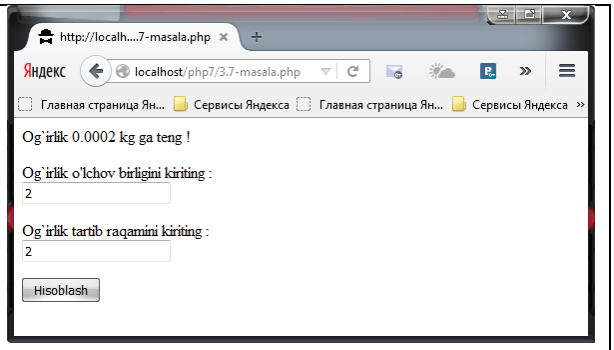
```
<?php
$a=$_POST['a'];
$k=$_POST['k'];
switch ($k)
{
  case 1 :
$dm=$a; $m=$dm/10;
echo "Kesma uzunligi $m metrga teng !";
    break;
  case 2 :
$km=$a; $m=$km/1000;
echo "Kesma uzunligi $m metrga teng !";
    break;
   case 3 :
$m=$a;
echo "Kesma uzunligi $m metrga teng !";
    break;
  case 4 :
$mm=$a; $m=$mm/1000;
echo "Kesma uzunligi $m metrga teng !";
    break;
    case 5 :
$sm=$a; $m=$sm/100;
echo "Kesma uzunligi $m metrga teng !";
    break;
  default:
    echo "1 dan 5 gacha raqam kiriting!";
    break;
}
?>
<form action="3.6-masala.php"
method="Post">
<p>Kesma uzunligini kiriting :
<br><input name="a" ></p>
<p>K Amal tartib raqamini kiriting :
<br><input name="k" ></p>
```



<input name="submit" type="Submit" value="Hisoblash"> </form>	

3.7-masala. Og‘irlik birliklari quyidagi tartibda berilgan. 1-kilogramm, 2-milligramm, 3-gramm, 4-tonna, 5- sentner. Og‘irlik birligini bildiruvchi son berilgan va shu birlikdagi og‘irlik qiymati berilgan. Og‘irlikni kilogramda ifodalovchi dastur tuzing.

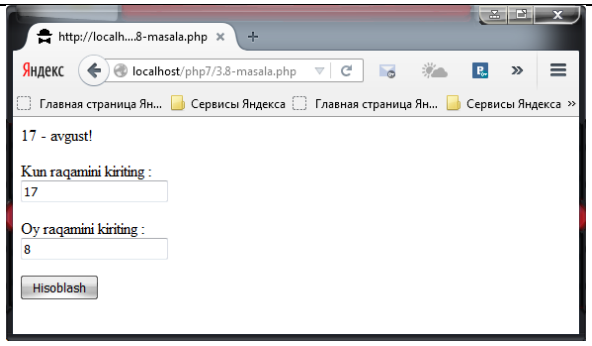
```
<?php
$a=$_POST['a'];
$k=$_POST['k'];
switch ($k)
{
case 1 :
$kg=$a;
echo "Og`irlik $kg kg ga teng !";
break;
case 2 :
$mg=$a;$kg=$mg/10000;
echo "Og`irlik $kg kg ga teng !";
break;
case 3 :
$gr=$a; $kg=$gr/1000;
echo "Og`irlik $kg kg ga teng !";
break;
case 4 :
$t=$a; $kg=$t*1000;
echo "Og‘irlik $kg kg ga teng!";
break;
case 5 :
$st=$a; $kg=$st*100;
echo "Og`irlik $kg kg ga teng !";
break;
default:
echo "O‘girlik tartib raqami 1 dan 5 gacha kiriting!";
break;
}
?>
<form action="3.7-masala.php"
method="Post">
<p> Og‘irlik o‘lchov birligini  kiriting :
<br><input name="a" ></p>
<p>Og‘irlik tartib raqamini kiriting :
```



 <input name="k" > <input name="submit" type="Submit" value="Hisoblash"> </form>	

3.8-masala. Sanani bildiruvchi ikkita butun son berilgan D (kun) va M (oy). (Kabisa bo‘lmagan yil sanasi kiritiladi). Berilgan sanani ifodalovchi dastur tuzing. Kabisa yilida 366 kun, kabisa bo‘lmagan yilda 365 kun mavjud.

```
<?php
$d=$_POST['d'];
$m=$_POST['m'];
switch ($m)
{
  case 1 :
if ($d>31)
{
echo "Yanvar oyida bunday sana yo‘q!";
}
else
{
$m='yanvar';
echo "$d - $m! <br>";
}
 break;
  case 2 :
if ($d>28)
{
echo "Fevral oyida bunday sana yo‘q!";
}
else
{
$m='fevral';
echo "$d - $m!";
}
    break;
   case 3 :
if ($d>31)
{
echo "Mart oyida bunday sana yo‘q!";
}
else
{
   $m='mart';
echo "$d - $m! <br>";
```



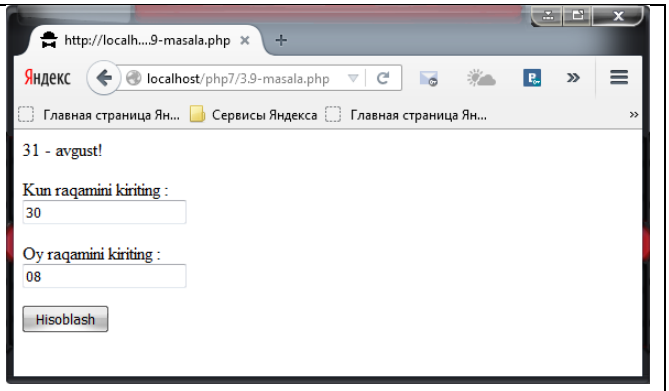
```
}
    break;
  case 4 :
if ($d>30)
{
echo "Aprel oyida bunday sana yo‘q!";
}
else
{
    $m='aprel';
echo "$d - $m! <br>";
}
    break;
   case 5 :
if ($d>31)
{
echo "May oyida bunday sana yo‘q!";
}
else
{
   $m='may';
echo "$d - $m! <br>";
}
break;
  case 6 :
if ($d>30)
{
echo "Iyun oyida bunday sana yo‘q!";
}
else
{
$m='iyun';
echo "$d - $m! <br>";
}
break;
   case 7 :
if ($d>31)
{
echo "Iyul oyida bunday sana yo‘q!";
}
else
{
$m='iyul';
echo "$d - $m! <br>";
}
```

```
break;
 case 8 :
if ($d>31)
{
echo "Avgust oyida bunday sana yo‘q!";
}
else
{
$m='avgust';
echo "$d - $m! <br>";
}
   break;
  case 9 :
if ($d>30)
{
echo "Sentabr oyida bunday sana yo‘q!";
}
else
{
    $m='sentabr';
echo "$d - $m! <br>";
}
break;
   case 10 :
if ($d>31)
{
echo "Oktabr oyida bunday sana yo‘q!";
}
else
{
$m='oktabr';
echo "$d - $m! <br>";
}
break;
  case 11 :
if ($d>30)
{
echo "Noyabr oyida bunday sana yo‘q!";
}
else
{
   $m='noyabr';
echo "$d - $m! <br>";
}
   break;
```

```
   case 12 :
if ($d>31)
{
echo "Yanvar oyida bunday sana yo‘q!";
}
else
{
$m='dekabr';
echo "$d - $m! <br>";
}
break;
  default:
    echo "Bunday oy raqami yo‘q !!!";
 break;
}
?>
<form action="3.8-masala.php"
method="Post">
<p>Kun raqamini kiriting : <br><input
name="d" ></p>
<p>Oy raqamini kiriting : <br><input
name="m" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.9-masala. Ikkita butun son berilgan D (kun) va M (oy). (Kabisa bo‘lmagan yil sanasi kiritiladi). Berilgan sanadan keyingi sanani ifodalovchi dastur tuzing.

```
<?php
$d=$_POST['d'];
$m=$_POST['m'];
switch ($m)
{
case 1 :
$d=$d+1;
if ($d>31)
{
echo "Yanvar oyida bunday sana yo‘q!";
}
else
{
$m='yanvar';
echo "$d - $m! <br>";
}
```



```
 break;
case 2 :
$d=$d+1;
if ($d>28)
{
echo "Fevral oyida bunday sana yo‘q!";
}
else
{
$m='fevral';
echo "$d - $m!";
}
break;
case 3 :
$d=$d+1;
if ($d>31)
{
echo "Mart oyida bunday sana yo‘q!";
}
else
{
$m='mart';
echo "$d - $m! <br>";
}
break;
case 4 :
$d=$d+1;
if ($d>30)
{
echo "Aprel oyida bunday sana yo‘q!";
}
else
{
$m='aprel';
echo "$d - $m! <br>";
}
break;
case 5 :
$d=$d+1;
if ($d>31)
{
echo "May oyida bunday sana yo‘q!";
}
else
{
```

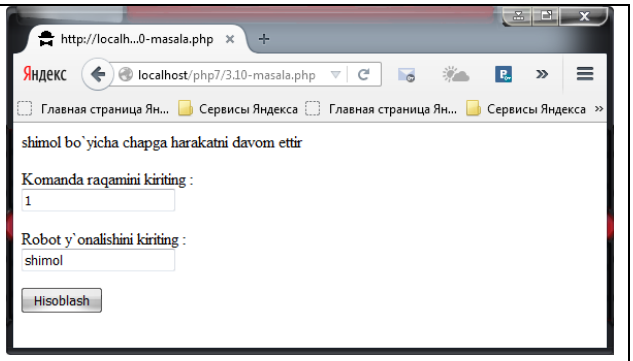
```
$m='may';
echo "$d - $m! <br>";
}
break;
case 6 :
$d=$d+1;
if ($d>30)
{
echo "Iyun oyida bunday sana yo‘q!";
}
else
{
$m='iyun';
echo "$d - $m! <br>";
}
break;
case 7 :
$d=$d+1;
if ($d>31)
{
echo "Iyul oyida bunday sana yo‘q!";
}
else
{
$m='iyul';
echo "$d - $m! <br>";
}
break;
case 8 :
$d=$d+1;
if ($d>31)
{
echo "Avgust oyida bunday sana yo‘q!";
}
else
{
$m='avgust';
echo "$d - $m! <br>";
}
break;
case 9 :
$d=$d+1;
if ($d>30)
{
echo "Sentabr oyida bunday sana yo‘q!";
```

```
}
else
{
$m='sentabr';
echo "$d - $m! <br>";
}
break;
case 10 :
$d=$d+1;
if ($d>31)
{
echo "Oktabr oyida bunday sana yo‘q!";
}
else
{
$m='oktabr';
echo "$d - $m! <br>";
}
break;
case 11 :
$d=$d+1;
if ($d>30)
{
echo "Noyabr oyida bunday sana yo‘q!";
}
else
{
$m='noyabr';
echo "$d - $m! <br>";
}
break;
case 12 :
$d=$d+1;
if ($d>31)
{
echo "Yanvar oyida bunday sana yo‘q!";
}
else
{
$m='dekabr';
echo "$d - $m! <br>";
}
break;
default:
echo "Bunday oy raqami yo‘q!";
```

```
break;
}
?>
<form action="3.9-masala.php"
method="Post">
<p>Kun raqamini kiriting : <br><input
name="d" ></p>
<p>Oy raqamini kiriting : <br><input
name="m" ></p>
<p><input name="submit"
type="Submit" value="Hisoblash"></p>
</form>
```

3.10-masala. Robot faqat to‘rtta tomonga ko‘cha oladi(‘v’-shimol, ‘j’-janub, ‘q’-sharq, ‘g’-g‘arb) va uchta raqamli buyruq: 0-harakni davom ettir, 1-chapga buril, 2-o'ngga buril. Y - robot yo‘nalishi va K - buyruq berilgan. Berilgan buyruq bajarilgandan keying robot holatini aniqlovchi dastur tuzing.

```
<?php
$k=$_POST['k'];
$y=$_POST['y'];
$s='shimol'; $j='janub'; $q='sharq';
$g='g`arb';
switch ($k)
{
case 0:
if ($y==$s)
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$q)
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$g)
echo "$y bo‘yicha harakatni davom ettir";
else
{
echo "Yo‘nalish yoki komandani to‘g‘ri
kiriting!";
}
```

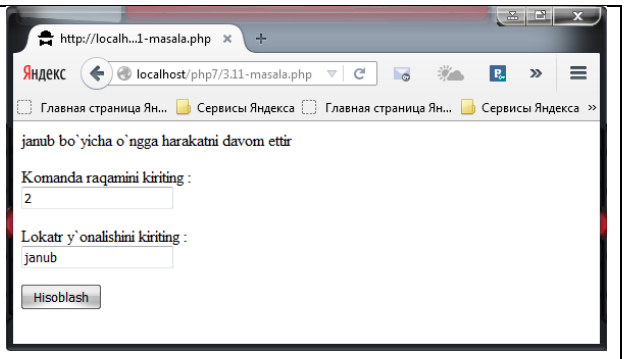


```
break;
case 1:
if ($y==$s)
{
echo "$y bo‘yicha chapga harakatni davom
ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha chapga harakatni davom
ettir";
}
elseif ($y==$q)
{
echo "$y bo‘yicha chapga harakatni davom
ettir";
}
elseif ($y==$g)
echo "$y bo‘yicha chapga harakatni davom
ettir";
else
{
echo "Yo‘nalish yoki komandani to‘g‘ri
kiriting!";
}
break;
case 2:
if ($y==$s)
{
echo "$y bo‘yicha o‘ngga harakatni davom
ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha o‘ngga harakatni davom
ettir";
}
elseif ($y==$q)
{
echo "$y bo‘yicha o‘ngga harakatni davom
ettir";
}
elseif ($y==$g)
{
echo "$y bo‘yicha o‘ngga harakatni davom
```

```
ettir";
}
else
{
echo "Yo`nalish yoki komandani to‘g‘ri
kiriting!";
}
break;
default :
echo "Bunday yo`nalish yoki komanda
mavjud emas!";
}
?>
<form action="3.10-masala.php"
method="Post">
<p>Komanda raqamini kiriting :
<br><input name="k" ></p>
<p>Robot y`onalishini kiriting :
<br><input name="y" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.11-masala. Lokator dunyoning bir tomoniga qaratilgan((‘v’-shimol, ‘j’-janub, ‘q’-sharq, ‘g’-g‘arb) va uchta raqamli buyruq: 0-o‘ngga buril, 1-chapga buril, 2-burilish 180°. C - lokatorning boshlang‘ich holati va K1, K2 - buyruqlar berilgan. Berilgan buyruq bajarilgandan keyin lokator holatini aniqlovchi dastur tuzing.

```
<?php
$k=$_POST['k'];
$y=$_POST['y'];
$s='shimol'; $j='janub'; $q='sharq';
$g='g`arb';
switch ($k)
{
case 0:
if ($y==$s)
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$q)
```

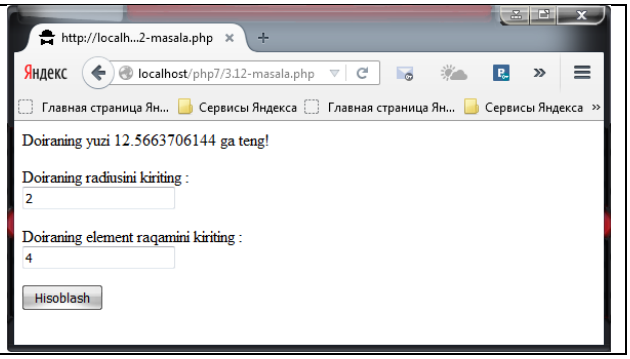


```
{
echo "$y bo‘yicha harakatni davom ettir";
}
elseif ($y==$g)
echo "$y bo‘yicha harakatni davom ettir";
else
{
echo "Yo‘nalish yoki buyruqni to‘g‘ri kiriting!";
}
break;
case 1:
if ($y==$s)
{
echo "$y bo‘yicha chapga harakatni davom ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha chapga harakatni davom ettir";
}
elseif ($y==$q)
{
echo "$y bo‘yicha chapga harakatni davom ettir";
}
elseif ($y==$g)
echo "$y bo‘yicha chapga harakatni davom ettir";
else
{
echo "Yo‘nalish yoki buyruqni to‘g‘ri kiriting!";
}
break;
case 2:
if ($y==$s)
{
echo "$y bo‘yicha o`ngga harakatni davom ettir";
}
elseif ($y==$j)
{
echo "$y bo‘yicha o‘ngga harakatni davom
```

```
ettir";
}
elseif ($y==$q)
{
echo "$y bo`yicha o‘ngga harakatni davom
ettir";
}
elseif ($y==$g)
{
echo "$y bo‘yicha o`ngga harakatni davom
ettir";
}
else
{
echo "Yo‘nalish yoki buyruqni to‘g‘ri
kiriting!";
}
break;
default :
echo "Bunday yo‘nalish yoki buyruq
mavjud emas!";
}
?>
<form action="3.11-masala.php"
method="Post">
<p> Buyruq raqamini kiriting: <br><input
name="k" ></p>
<p>Lokator yo‘nalishini kiriting :
<br><input name="y" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.12-masala. Doiraning elementlari quyidagi tartibda nomerlangan. 1-radius R, 2-diametr $D = 2 * R$, 3-uzunligi $L = 2 * \pi * R$, 4-doiraning yuzasi $S = \pi * R^2$. Shu formulalardan bittasi berilganda qolganlarini topuvchi dastur tuzing.

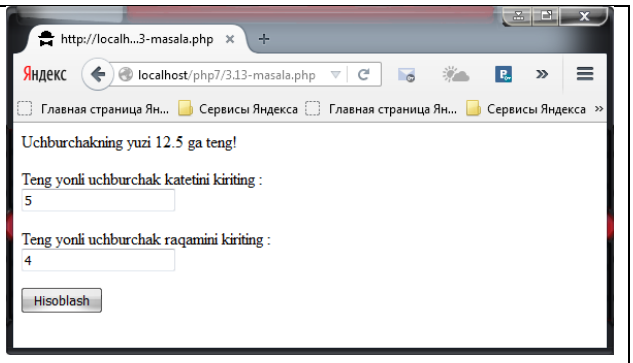
```
<?php
$r=$_POST['r'];
$k=$_POST['k'];
switch ($k)
{
case 1 :
echo "Radius $r ga teng!<br>";
break;
```



```
case 2:
$D=2*$r;
echo "Diametr $D ga teng!<br>";
break;
case 3:
$L=2*pi()*$r;
echo "Aylana uzunligi $L ga teng!<br>";
break;
case 4:
$S=pi()*$r*$r;
echo "Doiraning yuzi $S ga teng!<br>";
  break;
default:
echo "Doiraning element raqamini 1 dan 4
gacha kiriting!";
break;
}
?>
<form action="3.12-masala.php"
method="Post">
<p>Doiraning radiusini kiriting :
<br><input name="r" ></p>
<p>Doiraning element raqamini kiriting :
<br><input name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.13-masala. Teng yonli uchburchakning elementlari quyidagi tartibda nomerlangan. 1-katet – “a”, 2-katet - “b”, 3-gipotenuza - “c” ($C = a * \sqrt{2}$) , 4- gipotenuzaga tushirilgan balandlik $h = c/2$, 5- yuzasi $S = (c * h)/2$. Ushbu formulalardan bittasi berilganda qolganlarini topuvchi dastur tuzing.

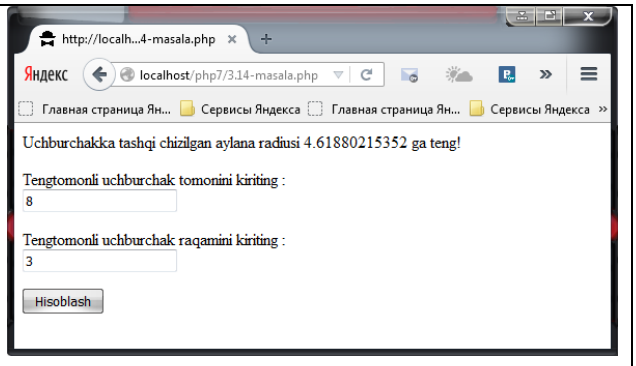
```
<?php
$a=$_POST['a'];
$k=$_POST['k'];
switch ($k)
{
case 1 :
echo "Kateti $a ga teng!";
break;
case 2:
$c=$a*sqrt(2);
echo "Gipotenuzasi $c ga teng!";
break;
```



```
case 3:
$c=$a*sqrt(2);
$h=$c/2;
echo "Gipotenuzaga tushirilgan balandlik
$h ga teng!";
break;
case 4:
$c=$a*sqrt(2);
$h=$c/2;
$S=($c*$h)/2;
echo "Uchburchakning yuzi $S ga teng!";
  break;
default:
echo "Teng yonli uchburchak raqamini 1
dan 4 gacha kiriting!";
break;
}
?>
<form action="3.13-masala.php"
method="Post">
<p>Teng yonli uchburchak katetini kiriting
: <br><input name="a" ></p>
<p>Teng yonli uchburchak raqamini
kiriting : <br><input name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.14-masala. Teng tomonli uchburchakning elementlari quyidagi tartibda nomerlangan. 1-tomoni a, 2-ichki chizilgan aylananing radiusi $R_1 = (a * \sqrt{3})/6$, 3 - tashqi chizilgan aylananing radiusi $R_2 = 2 * R_1$, 4-yuzasi $S = (a^2 * \frac{\sqrt{3}}{4})$. Shu formulalardan bittasi berilganda qolganlarini topuvchi dastur tuzing.

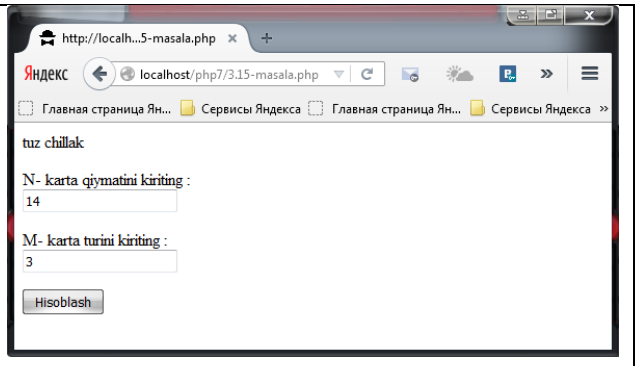
```
<?php
$a=$_POST['a'];
$k=$_POST['k'];
switch ($k)
{
case 1 :
echo "Tomoni $a ga teng!";
break;
case 2:
$R1=($a*sqrt(3))/6;
echo "Uchburchakka ichki chizilgan
```



```
aylana radiusi $R1 ga teng!";
break;
case 3:
$R1=($a*sqrt(3))/6;
$R2=2*$R1;
echo "Uchburchakka tashqi chizilgan
aylana radiusi $R2 ga teng!";
break;
case 4:
$S=($a*$a*sqrt(3))/4;
echo "Uchburchakning yuzi $S ga teng!";
  break;
default:
echo "Tengtomonli uchburchak raqamini 1
dan 4 gacha kiriting!";
break;
}
?>
<form action="3.14-masala.php"
method="Post">
<p>Tengtomonli uchburchak tomonini
kiriting : <br><input name="a" ></p>
<p>Tengtomonli uchburchak raqamini
kiriting : <br><input name="k" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.15-masala. O‘yin kartasi turlari berilgan 1-gisht, 2-olma. 3-chillak, 4-qarg‘a. 10 lik kartadan katta kartalar quyidagi qiymatlarni o‘zlashtirgan: 11-valet, 12-dama, 13-qirol, 14-tuz. Ikkita butun son berilgan N-karta qiymati($6 \leq N \leq 14$), M-karta turi ($1 \leq M \leq 14$) kiriteligan karta nomlarini (masalan: ‘olti qarg‘a‘) chiqarib beruvchi dastur tuzing.

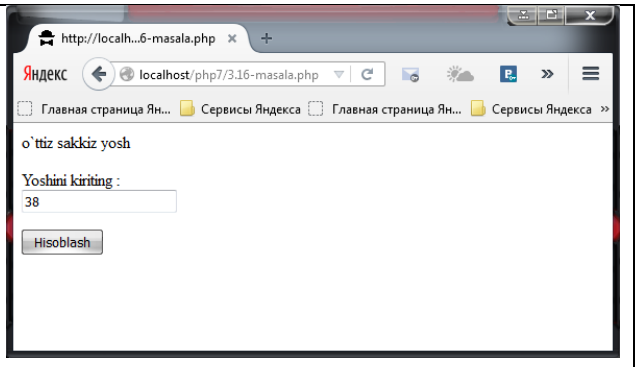
```
<?php
$N=$_POST['N'];
$M=$_POST['M'];
if (($N>=6)and($N<=14))
{
switch ($N)
{
case 6: $a="olti";break;
case 7: $a="yetti";break;
case 8: $a="sakkiz";break;
case 9: $a="to`qqiz";break;
```



```
case 10: $a="o`n";break;
case 11: $a="valet";break;
case 12: $a="dama";break;
case 13: $a="qirol";break;
case 14: $a="tuz";break;
}
}
else
{
echo "Karta qiymatini 6<=N<=14 oraliqda
kiriting!<br>";
}
if ($M<=4)
{
switch ($M)
{
case 1: $b="g`isht";break;
case 2: $b="olma";break;
case 3: $b="chillak";break;
case 4: $b="qarg`a";break;
}
}
else
{
echo "Karta turining qiymatini birdan
to`rtgacha qiymatda kiriting!";
}
echo $a." ".$b;
?>
<form action="3.15-masala.php"
method="Post">
<p>N- karta qiymatini kiriting :
<br><input name="N" ></p>
<p>M- karta turini kiriting : <br><input
name="M" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

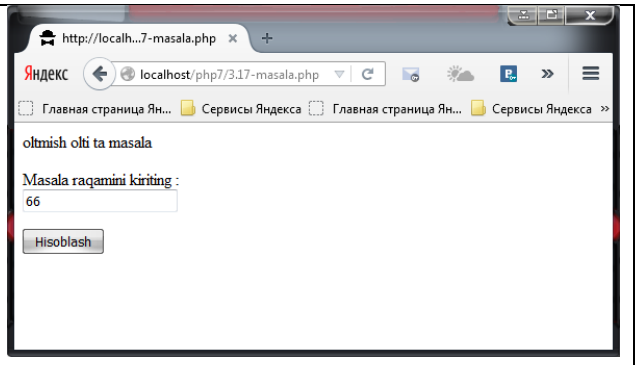
3.16-masala. Yoshni yillarda aniqlovchi 20-69 gacha butun son berilgan. Son kiritilganda unga mos so'zlarda ifodalovchi dastur tuzing. (“yigirma yosh”, “qirq uch yosh” va h.k.)

```php
<?php
$y=$_POST['y'];
if ($y>=100)
{
echo "1 dan 99 gacha bo‘lgan sonlarni
kiriting!";
}
else
{
$m=$y%10;
switch ($m)
{
case 1:$bir="bir"; break;
case 2:$bir="ikki"; break;
case 3:$bir="uch"; break;
case 4:$bir="to‘rt"; break;
case 5:$bir="besh"; break;
case 6:$bir="olti"; break;
case 7:$bir="yetti"; break;
case 8:$bir="sakkiz"; break;
case 9:$bir="to‘qqiz"; break;
}
$y=$y/10;
$m=$y%10;
switch ($m)
{
case 1:$un="o‘n"; break;
case 2:$un="yigirma"; break;
case 3:$un="o‘ttiz"; break;
case 4:$un="qirq"; break;
case 5:$un="ellik"; break;
case 6:$un="oltmish"; break;
case 7:$un="yetmish"; break;
case 8:$un="sakson"; break;
case 9:$un="to‘qson"; break;
}
echo "$un  $bir yosh";
}
?>
<form action="3.16-masala.php"
method="Post">
<p>Yoshini kiriting : <br><input name="y"
></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```



3.17-masala. O‘quv masalalarini aniqlovchi 1040 gacha butun son berilgan. Son kiritilganda unga mos so‘zlarda ifodalovchi dastur tuzing. (“yigirmata masala”, “o‘n uchta masala” va h.k.)

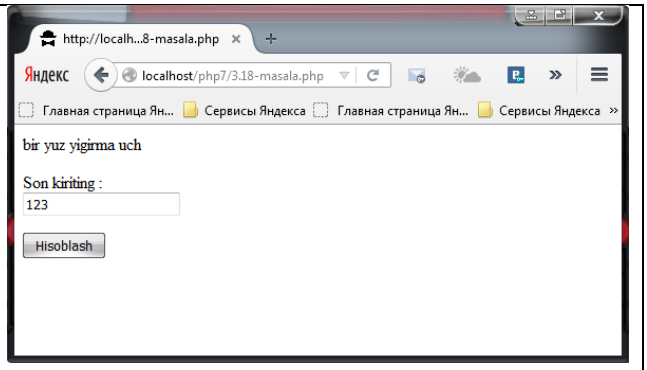
```
<?php
$y=$_POST['y'];
if ($y>=100)
{
echo "1 dan 99 gacha bo‘lgan sonlarni
kiriting!";
}
else
{
$m=$y%10;
switch ($m)
{
case 1:$bir="bir"; break;
case 2:$bir="ikki"; break;
case 3:$bir="uch"; break;
case 4:$bir="to‘rt"; break;
case 5:$bir="besh"; break;
case 6:$bir="olti"; break;
case 7:$bir="yetti"; break;
case 8:$bir="sakkiz"; break;
case 9:$bir="to‘qqiz"; break;
}
$y=$y/10;
$m=$y%10;
switch ($m)
{
case 1:$un="o‘n"; break;
case 2:$un="yigirma"; break;
case 3:$un="o‘ttiz"; break;
case 4:$un="qirq"; break;
case 5:$un="ellik"; break;
case 6:$un="oltmish"; break;
case 7:$un="yetmish"; break;
case 8:$un="sakson"; break;
case 9:$un="to‘qson"; break;
}
echo "$un $bir ta masala";
}
?>
<form action="3.17-masala.php"
method="Post">
```



```
<p>Masala raqamini kiriting : <br><input
name="y" ></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.18-masala. 100-999 gacha oraliqdagi sonlarni so‘zlarda ifodalovchi dastur tuzing. (masalan: 123-“bir yuz yigirma uch”).

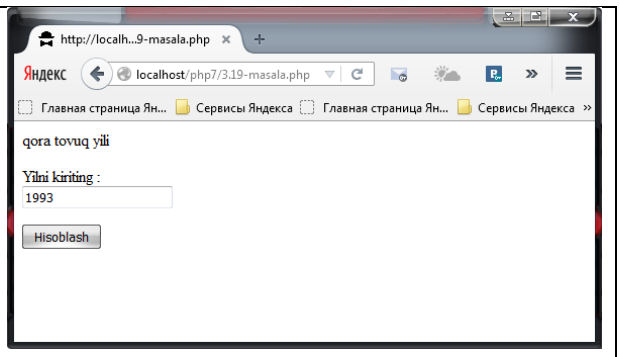
```
<?php
$y=$_POST['y'];
if ($y>=1000)
{
echo "1 dan 999 gacha bo‘lgan sonlarni
kiriting!";
}
else
{
$m=$y%10;
switch ($m)
{
case 1:$bir="bir"; break;
case 2:$bir="ikki"; break;
case 3:$bir="uch"; break;
case 4:$bir="to‘rt"; break;
case 5:$bir="besh"; break;
case 6:$bir="olti"; break;
case 7:$bir="yetti"; break;
case 8:$bir="sakkiz"; break;
case 9:$bir="to‘qqiz"; break;
}
$y=floor($y/10);
$m=$y%10;
switch ($m)
{
case 1:$un="o‘n"; break;
case 2:$un="yigirma"; break;
case 3:$un="o‘ttiz"; break;
case 4:$un="qirq"; break;
case 5:$un="ellik"; break;
case 6:$un="oltmish"; break;
case 7:$un="yetmish"; break;
case 8:$un="sakson"; break;
case 9:$un="to‘qson"; break;
}
```



```
$m=floor($y/10);
switch ($m)
{
case 1:$yuz="bir yuz"; break;
case 2:$yuz="ikki yuz"; break;
case 3:$yuz="uch yuz"; break;
case 4:$yuz="to‘rt yuz"; break;
case 5:$yuz="besh yuz"; break;
case 6:$yuz="olti yuz"; break;
case 7:$yuz="yetti yuz"; break;
case 8:$yuz="sakkiz yuz"; break;
case 9:$yuz="to‘qqiz yuz"; break;
}
echo  "$yuz $un $bir";
}
?>
<form action="3.18-masala.php"
method="Post">
<p>Son kiriting : <br><input name="y"
></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.19-masala. Sharq kalendarida 60 yillik davr qabul qilingan. Yil muchali 5 ta rang (yashil, qizil, sariq, oq va qora) va 12 ta hayvon (sichqon, sigir, yo‘lbars, quyon, ajdar, ilon, ot, qo‘y, maymun, tovuq, it va to‘ngiz lardan) nomlarining kombinatsiyasidan kelib chiqadi. Yilning raqamiga qarab uning muchalini aniqlovchi dastur tuzing. Masalan: 1984-davr boshi: “Yashil sichqon yili”

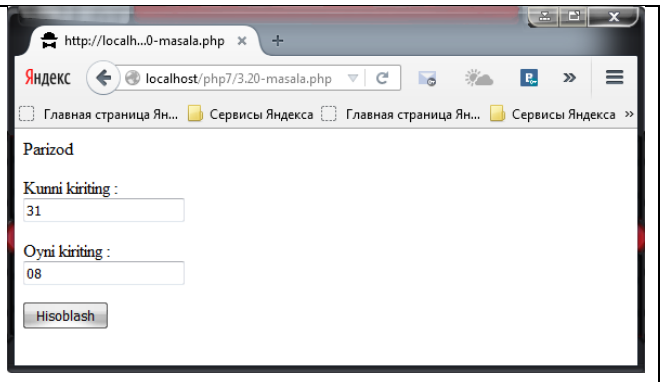
```
<?php
$y=$_POST['y'];
$m=$y-1983;
switch ($m%12)
{
case 0:$much="to‘ng‘iz"; break;
case 1:$much="sichqon"; break;
case 2:$much="sigir"; break;
case 3:$much="yo‘lbars"; break;
case 4:$much="quyon"; break;
case 5:$much="ajdar"; break;
case 6:$much="ilon"; break;
case 7:$much="ot"; break;
case 8:$much="qo‘y"; break;
case 9:$much="maymun"; break;
```



```
case 10:$much="tovuq"; break;
case 11:$much="it"; break;
}
switch($m%5)
{
case 0:$rang="qora"; break;
case 1:$rang="yashil"; break;
case 2:$rang="qizil"; break;
case 3:$rang="sariq"; break;
case 4:$rang="oq"; break;
}
echo "$rang $much yili";
?>
<form action="3.19-masala.php"
method="Post">
<p>Yilni kiriting : <br><input name="y"
></p>
<p><input name="submit" type="Submit"
value="Hisoblash"></p>
</form>
```

3.20-masala. Ikkita burj vaqtlarini aniqlovchi butun son berilgan: D(kun), M(oy). Berilgan sana qaysi burjga kirishini aniqlovchi dastur tuzing."Qovg‘a(20.1-18.2)", "Baliq(19.2-20.3)', "Qoy(21.3-19.4)", "Buzoq(20.4-20.5)", "Egizaklar(21.5-21.6)", "Qisqichbaqa(22.6-22.7)", "Arslon(23.7-22.8)", "Parizod(23.8-22.9)", "Tarozi(23.9-22.10)", "Chayon(23.10-22.11)", "O‘q otar(23.11-21.12)", "Echki(22.12-19.1)".

```
<?php
$d=$_POST['d'];
$m=$_POST['m'];
switch ($m)
{
case 1:if ($d<20) {echo "Echki";} else
{echo "Qovg`a";}break;
case 2:if ($d<19) {echo "Qovg‘a";} else
{echo "Baliq";}break;
case 3:if ($d<21) {echo "Baliq";} else
{echo "Qo`y";}break;
case 4:if ($d<20) {echo "Qo‘y";} else
{echo "Buzoq";}break;
case 5:if ($d<20) {echo "Buzoq";} else
{echo "Egizak";}break;
case 6:if ($d<22) {echo "Egizak";} else
{echo "Qisqichbaqa";}break;
case 7:if ($d<23) {echo "Qisqichbaqa";}
```



```
else {echo "Arslon";}break;
case 8:if ($d<23) {echo "Arslon";} else
{echo "Parizod";}break;
case 9:if ($d<23) {echo "Parizod";} else
{echo "Tarozi";}break;
case 10:if ($d<23) {echo "Tarozi";} else
{echo "Chayon";}break;
case 11:if ($d<23) {echo "Chayon";}
else {echo "O‘qotar";}break;
case 12:if ($d<23) {echo "O‘qotar";}
else {echo "Echki";}break;
default :
echo "Bunday oy mavjud emas!";
}
?>
<form action="3.20-masala.php"
method="Post">
<p>Kunni kiriting : <br><input
name="d" ></p>
<p>Oyni kiriting : <br><input
name="m" ></p>
<p><input name="submit"
type="Submit" value="Hisoblash"></p>
</form>
```

3.6. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLAR

Topshiriq: 1) Quyidagi topshiriqlarni if…else operatoridan foydalangan holda hisoblash uchun PHP tilidagi dasturini tuzing:

2.1-masala. Butun son berilgan. Agar, berilgan son musbat bo'lsa. 1 ga oshirilsin, aks holda o‘zgartirilmasin. Hosil bo‘lgan sonni ekranga chiqaruvchi dastur tuzing.
2.2-masala. Butun son berilgan. Agar, berilgan son musbat bo‘lsa. 1 ga oshiring, aks holda 2 ga kamaytiring. Hosil bo‘lgan sonni ekranga chiqaruvchi dastur tuzing.
2.3-masala. Butun son berilgan. Agar, berilgan son musbat bo‘lsa. 1 ga oshiring. agar manfiy bo‘lsa 2 ga kamaytiring. Agar 0 ga teng bo‘lsa. 10 ni o‘zlashtirsin. Hosil bo‘lgan sonni ekranga chiqaruvchi dastur tuzing.
2.4-masala. Uchta butun son berilgan. Shu sonlar orasidan nechta musbat son borligini aniqlovchi dastur tuzing.
2.5-masala. Uchta butun son berilgan. Shu sonlar orasidan nechta musbat va manfiy son borligini aniqlovchi dastur tuzing.
2.6-masala. Ikkita butun son berilgan. Shu sonlarning kattasini aniqlovchi dastur tuzing.
2.7-masala. Ikkita butun son berilgan. Shu sonlarning kichigining tartib raqamini aniqlovchi dastur tuzing.

2.8-masala. Ikkita butun son berilgan. Shu sonlarning avval kattasini keyin kichigini ekranga chiqaruvchi dastur tuzing.
2.9-masala. A va B haqiqiy sonlari berilgan. Shu sonlarni shunday o‘zgartirish kerakki, A son kichik B son katta bo‘lsin. A va B ning qiymati ekranga chiqarilsin.
2.10-masala. A va B butun sonlari berilgan. Agar o‘zgaruvchilar o‘zaro teng bo‘lmasa. A va B o‘zgaruvchilari ularning yig'indisini o‘zlashtirsin. Agar teng bo‘lsa. 0 ni o‘zlashtirsin. A va B ning qiymati ekranga chiqarilsin.
2.11-masala. A va B butun sonlari berilgan. Agar o‘zgaruvchilar o‘zaro teng bo‘lmasa. A va B bu sonlarning kattasini o‘zlashtirsin. Agar teng bo‘lsa. 0 ni o‘zlashtirsin. A va B ning qiymati ekranga chiqarilsin.
2.12-masala. Uchta son berilgan. Shu sonlarni kichigini aniqlovchi dastur tuzing.
2.13-masala. Uchta son berilgan. Shu sonlarni o‘ratachasi (ya’ni katta va kichik sonlar orasidagi son) ni aniqlovchi dastur tuzing.
2.14-masala. Uchta son berilgan. Shu sonlarning yig‘indisi eng katta bo‘ladigan ikkitasini ekranga chiqaruvchi dastur tuzing.
2.15-masala. A, B, C haqiqiy sonlari berilgan. Agar berilgan sonlar o‘sish tartibida berilgan bo‘lsa, sonlarni ikkilantiring. aks holda sonlarning ishorasi o‘zgartirilsin. A, B, C ning qiymatlari ekranga chiqarilsin.
2.16-masala. A, B, C haqiqiy sonlari berilgan. Agar berilgan sonlar o‘sish yoki kamayish tartibida berilgan bo‘lsa. sonlarni ikkilantiring. aks holda sonlarning ishorasi o‘zgartirilsin. A. B, C ning qiymatlari ekranga chiqarilsin.
2.17-masala. Uchta butun son berilgan. Shu sonlarni ikkitasi o‘zaro teng. qolgan bittasining tartib raqami aniqlansin.
2.18-masala. To‘rtta butun son berilgan. Shu sonlarni uchtasi o‘zaro teng. qolgan bittasining tartib raqami aniqlansin.
2.19-masala. Sonlar o‘qida uchta A, B, C nuqtalar berilgan. A nuqtaga eng yaqin nuqta va ular orasidagi masofa topilsin.
2.20-masala. Yil berilgan (musbat butun son). Berilgan yilda nechta kun borligini aniqlovchi dastur tuzing. Kabisa yilida 366 kun bor. kabisa bo‘lmagan yilda 365 kun bor. Kabisa yil deb 4 ga karrali yillarga aytiladi. Lekin 100 ga karrali yillar ichida faqat 400 ga karrali bo‘lganlari kabisa yil hisoblanadi. Masalan 300, 1300 va 1900 kabisa yili emas. 1200 va 2000 kabisa yili.

Topshiriq: 2) Quyidagi masalaning switch tanlash operatoridan foydalanib PHP tilidagi dasturini tuzing:

3.1-masala. 0-9 gacha bo‘lgan butun sonlar berilgan. Kiritilgan songa mos ravishda tegishli so‘z bilan ifodalovchi dastur tuzing. (0-nol 1-bir....h.k)
3.2-masala. K butun soni berilgan. Ushbu raqamga mos, rang nomerini chiqaruvchi dastur tuzing.(0-qora, 1-ko‘k, 2- yashil 3- billur, 4- qizil, 5- siyohrang, 6- jigarrang, 7- havorang, 8- sariq, 9-oq). Agar K soni [0,9] oraliqqa tegishli bo'lmasa “xato” so‘zini chop eting.
3.3-masala. Meva nomi berilgan. Kiritilgan meva qaysi turga tegishli ekanligini aniqlovchi dastur tuzing. (Masalan: yong‘oq, “quruq”).
3.4-masala. Davlat nomi berilgan. Shu Davlat qaysi qit’aga tegishli ekanligini

aniqlovchi dastur tuzing.

3.5-masala. A, B, C haqiqiy sonlar va amalning bajarilish tartibi raqami berilgan bo‘lsin. A, B va C sonlari ustida arifmetik amallar bajaruvchi dastur tuzing. K-amal quyidagi qiymatlarni qabul qiladi: 1- ko‘paytirish, 2- bo‘lish, 3- qo‘shish, 4- ayirish.

3.6-masala. Uzinlik birliklari quyidagi tartibda berilgan. 1- kilometr, 2-metr, 3-desimetr, 4- santimetr, 5- millimeter. Uzunlik birligini bildiruvchi son (1 - 5 oraliqda) va kesma uzunligi berilgan (haqiqiy son). Kesmaning uzunligini santimetrda ifodalofchi dastur tuzing.

3.7-masala. Og‘irlik birliklari quyidagi tartibda berilgan. 1-tonna, 2-sentner, 3-kilogramm, 4-gramm, 5-milligramm. Og‘irlik birligini bildiruvchi soni va shu birlikdagi og‘irlik qiymati berilgan. Og‘irlikni grammda ifodalovchi dastur tuzing.

3.8-masala. Sanani bildiruvchi to‘rtta butun son berilgan: D1 va D2 (kun) va M1 va M2 (oy), (kabisa bo‘lmagan yil sanasi kiritiladi). Berilgan sanalar oralig‘i necha kun ekanligini ifodalovchi dastur tuzing. Kabisa yilida 366 kun, kabisa bo‘lmagan yilda 365 kun bor bo‘ladi.

3.9-masala. Ikkita butun son berilgan D (kun) va M (oy). (Kabisa bo‘lmagan yil sanasi kiritiladi). Berilgan sanadan oldingi sanani ifodalovchi dastur tuzing.

3.10-masala. Mashina faqat to‘rt ta tomonga ko‘cha oladi(“s”-shimol, “j”-janub, “q”-sharq, “g”-g'arb) va uchta raqamli buyruq: 0-harakatni davom ettir, 1-chapga yur, 2-o‘ngga yur. Y - robot yo‘nalishi va K - buyruq berilgan. Berilgan buyruq bajarilgandan keying mashina holatini aniqlovchi dastur tuzing.

3.11-masala. Samalyot harakatlanayotganda bir tomonga qaratilgan (“s”-shimol, “j”-janub, “q”-sharq, “g”-g'arb) va uchta raqamli buyruq: 0-o‘ngga buril, 1-chapga buril, 2-180° ga burilish. C - samalyotning boshlang‘ich holati va K1, K2 - buyruqlar berilgan. Berilgan buyruq bajarilgandan keyingi samalyot holatini aniqlovchi dastur tuzing.

3.12-masala. Arifmetik progressiyaninmg birinchi va ikkinchi hadi hamda hadlar soni berilgan: 1-ayirmasi d ni 2-n hadini $a_n = a + d \cdot (n-1)$ 3-n ta hadlar yig‘indisi $S_n = \frac{2 \cdot a + d \cdot (n-1) \cdot n}{2}$ topish formulalari. Shu formulalardan bittasi berilganda qolganlarini topuvchi dastur tuzing.

3.13-masala. Kubning qirrasi uzunligi a berilgan: 1-yon sirti $S_{yon}=4*a^2$, 2-to‘la sirti $S_{to‘la}=6*a^2$, 3- hajmi $V=a^3$ ni hisoblash formulalari berilgan. Ulardan bittasini hisoblovchi dastur tuzing.

3.14-masala. Teng tomonli uchburchakning elementlari quyidagi tartibda nomerlangan. Uning 1-tomoni a, 2-ichki chizilgan aylananing radiusi $r = (a * \sqrt{3})/6$, 3 - tashqi chizilgan aylananing radiusi $R = 2 * r$, 4-yuzasi $S = (a^2 * \frac{\sqrt{3}}{4})$ ma’lum. Shu elementlardan bittasi berilganda qolganlarini topuvchi dastur tuzing.

3.15-masala. O‘yin kartasi turlari berilgan 1-gisht, 2-olma. 3-chillak, 4-qarg‘a. 10 lik kartadan katta kartalar quyidagi qiymatlarni o'zlashtirgan: 11-valet, 12-dama, 13-qirol, 14-tuz. Ikkita butun son berilgan N-karta qiymati($6 \le N \le 14$), M-karta turi ($1 \le M \le 14$) kiritilganda karta nomlarini (masalan: “olti qarg‘a”) chiqarib beruvchi dastur tuzing.

3.16-masala. Yoshni yillarda aniqlovchi 1-100 butun sonlar berilgan. Son

kiritilganda unga mos so'zlarda ifodalovchi dastur tuzing. (“besh yosh”, “sakson uch yosh” va h.k.)

3.17-masala.. O‘quv masalalarini aniqlovchi 10 000 gacha butun son berilgan. Son kiritilganda unga mos so'zlarda ifodalovchi dastur tuzing. ("yigirmata masala”, “o‘n uchta masala” va h.k.)

3.18-masala.. [1-9999] gacha oraliqdagi sonlarni so‘zlarda ifodalovchi dastur tuzing. (masalan: 999-“to‘qiz yuz to‘qson to‘qqiz”).

3.19-masala. Sharq kalendarida 60 yillik davr qabul qilingan. Yil muchali 5 ta rang (yashil, qizil, sariq, oq va qora) va 12 ta hayvon (sichqon, sigir, yo‘lbars, quyon, ajdar, ilon, ot, qo‘y, maymun, tovuq, it va to‘ngiz lardan) nomlaring kombinatsiyasidan kelib chiqadi. Yilning raqamiga qarab uning muchalini aniqlovchi dastur tuzing. Masalan: 1984-davr boshi: “Yashil sichqon yili”.

3.20-masala. Joriy sana va ikkita burj vaqtlarini aniqlovchi butun son berilgan: D1 va D2 (kun), M1 va M2 (oy).

Berilgan sanadan ma’lum burjgacha necha kun borligini aniqlovchi dastur tuzing.

"Qovg'a (20.1-18.2)”, “Baliq (19.2-20.3)”, “Qo y (21.3-19.4)”, “Buzoq (20.4-20.5)”, "Egizaklar (21.5-21.6)”, "Qisqichbaqa (22.6-22.7)”, “Arslon (23.7-22.8)”, “Parizod (23.8-22.9)”, “Tarozi (23.9-22.10)”, “Chayon (23.10-22.11)”, “O'qotar (23.11-21.12)”, "Echki (22.12-19.1)”.

IV. BOB. PHP DA TAKRORLASH OPERATORLARI

4.1. TAKRORLASH OPERATORI FOR

Bir hil hisoblash bloklarining bir necha bor takrorlanuvchi jarayoniga takrorlanish (sikl) deyiladi. PHP tilida takrorlanish operatorining uch xil turi mavjud:

1. **for** takrorlanish operatori;
2. **while** takrorlanish operatori;
3. **do .. while** takrorlanish operatori.

Yechilayotgan masalaga qarab, dasturchi o‘zi uchun qulay bo‘lgan takrorlanish operatoridan foydalanishi mumkin.
for takrorlash operatorining sintaksisi quyidagicha:

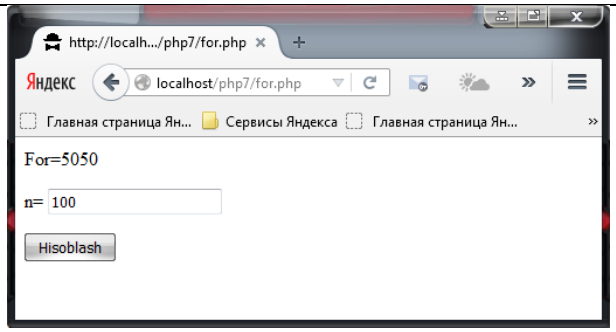
for (<ifoda1>; <ifoda2>; <ifoda3>)
<operator yoki blok>;

Bu operator amal qilishni <ifoda1> ni bajarishdan boshlaydi. Keyin takrorlash qadamlari boshlanadi. Har bir qadamda <ifoda2> bajariladi, agar natija 0 dan farqli yoki rost (true) bo’ lsa, takrorlanish tanasi - <operator yoki blok> bajariladi va oxirida <ifoda3> bajariladi, aks holda boshqaruv takrorlash operatoridan keyingi operatorga o‘tiladi. Takrorlanish tanasi – <operator yoki blok> sifatida bitta operator, shu jumladan bo’sh operator, yoki operatorlar bloki kelishi mumkin.
Takrorlanish takrorlanishi davomida bajarilishi lozim bo'lgan operatorlar majmuasi takrorlanish tanasi deyiladi. Takrorlanish tanasi sifatida bir yoki bir nechta operatordan foydalanish mumkin.

Agar takrorlanish tanasida bir nechta operatordan foydalanmoqchi bo`lsak bu operatorlarni blok { } orasiga olishimiz kerak.

Quyidagi masalada 1 dan n gacha sonlarning yig‘indisini hisoblaymiz:

```
<?php
$n = $_POST['n'];
$S=0;
 for ($i = 1; $i <= $n; $i++)
{
$S=$S+$i;
}
echo"$S";
?>
<form action="for.php" method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
```



</form>	

Natija oldingi rasmda ko‘rsatilganiga o‘xshash.

Cheksiz takrorlanishni quyidagicha tashkil qilish mumkin:

for(;;);

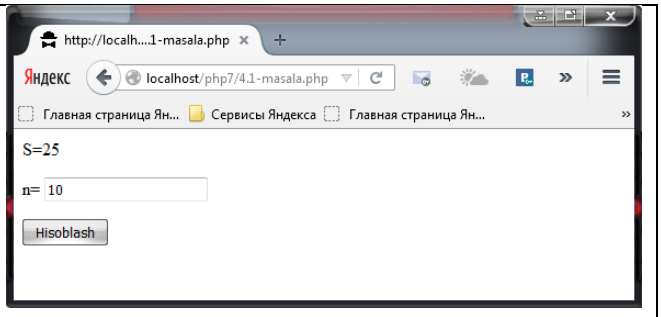
yoki

for(;1;);

4.2. PHP DA FOR TAKRORLASH OPERATORI TADBIQI

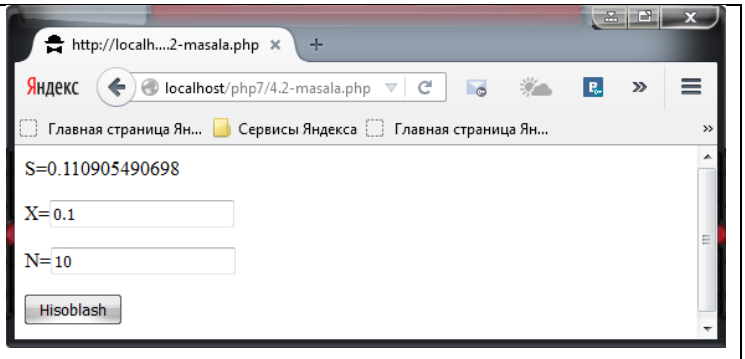
4.1-masala. 1 dan n gacha bo‘lgan sonlarning faqat toq raqamlarining yig‘indisini hisoblovchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$S=0;
 for ($i = 1; $i <= $n; $i++)
{
if ($i%2==1)
{
$S=$S+$i;
}
}
echo"S=$S";
?>
<form action="4.1-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.2-masala. N natural son va X haqiqiy sonlar berilgan. Quyidagi yig‘indini hisoblang. $S = \sin X + \sin^2 X + ... + \sin^N X$. Yechish. Izlanayotgan yig’indini S bilan belgilaymiz.

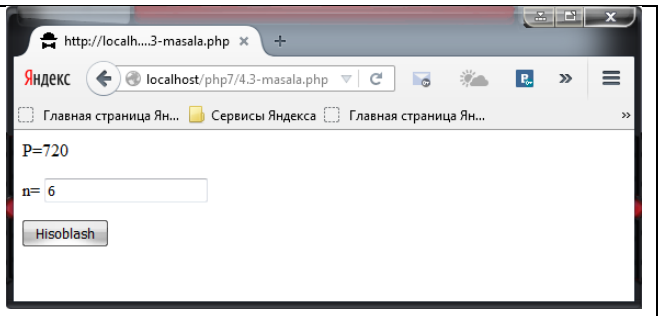
```
<?php
$x= $_POST['X'];
$N= $_POST['N'];
$s=0; $x=sin($x);
for($i=1;$i<=$N; $i++)
{
$s=$s+pow($x,$i);
}
echo "S=$s";
?>
```



```
<form action="4.2-masala.php"
method="post">
<p> X=<input name="X" ></p>
<p> N=<input name="N" ></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

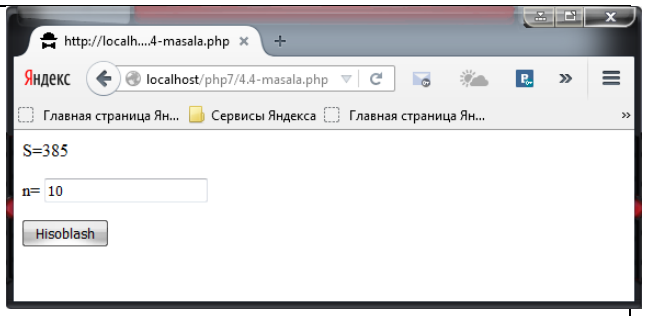
4.3-masala. N! hisoblash talab qilingan bo‘lsin, bunda N natural son. Yechish. N<34 bo‘lganda natural sonlar faktorialini hisoblash mumkin.

```
<?php
$n = $_POST['n'];
$P=1;
 for ($i = 1; $i <= $n; $i++)
{
$P=$P*$i;
}
echo"P=$P";
?>
<form action="4.3-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



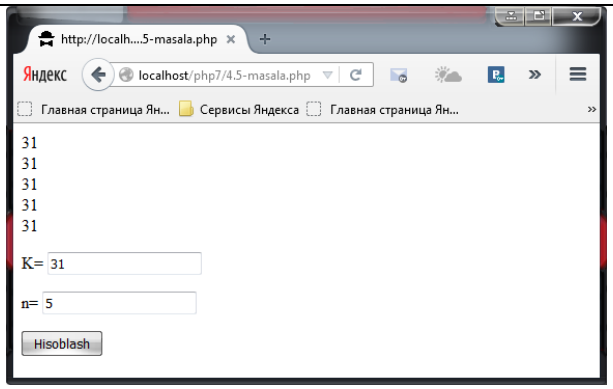
4.4-masala. 1 dan n gacha bo‘lgan natural sonlar kvadratlari yig‘indisini toping. Yechish. Izlanayotgan yig‘indini S bilan belgilaymiz.

```
<?php
$n = $_POST['n'];
$S=0;
 for ($i = 1; $i <= $n; $i++)
{
$S=$S+pow($i,2);
}
echo"S=$S";
?>
<form action="4.4-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



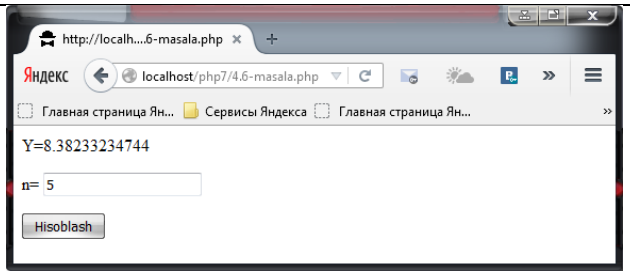
4.5-masala. k va n butun sonlari berilgan (n>0). к sonini n marta chiqaruvchi dastur tuzing.

```
<?php
$K = $_POST['K'];
$n = $_POST['n'];
for ($i = 1; $i <= $n; $i++)
{
echo"$K<br>";
}
?>
<form action="4.5-masala.php"
method="post">
<p>K= <input name="K"
type="text"></p>
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.6-masala. 1 dan n gacha bo‘lgan sonlardan sikl qadami 1 ga teng holda kvadrat ildiz chiqaring. Yechish. Berilgan x sondan chiqarilgan kvadrat ildizning qiymatini y bilan belgilaymiz: $y = \sqrt{x}$.

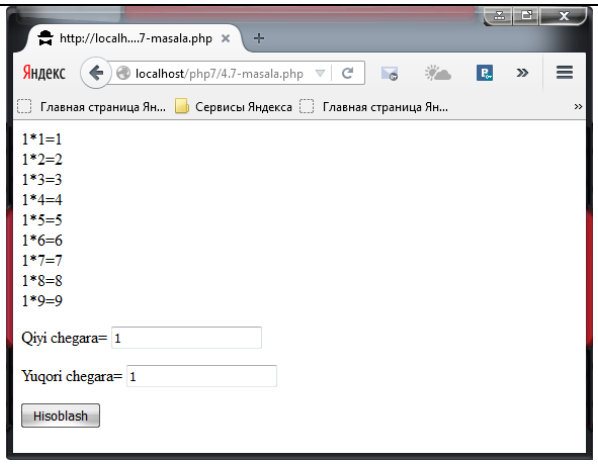
```
<?php
$n = $_POST['n'];
$Y=0;
 for ($i = 1; $i <= $n; $i++)
{
$Y=$Y+sqrt($i);
}
echo"Y=$Y";
?>
<form action="4.6-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.7-masala. 1 dan 9 gacha bo‘lgan sonlarni ko’paytirish jadvalini ekranga chiqaring. Yechish. Bu masalani yechish uchun 3 marta sikl buyrug‘idan foydalanamiz. Birinchi siklda birinchi ko‘paytuvchi 1 dan 3 gacha, ikkinchisi esa, 1 dan 9 gacha o‘zgaradi. Ikkinchisi siklda birinchi ko‘paytuvchi 4 dan 6 gacha, ikkinchisi esa, 1 dan 9 gacha

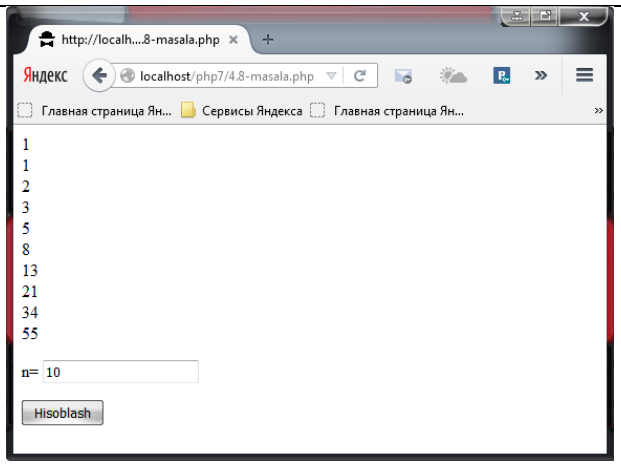
o’zgaradi. Uchinchi siklda birinchi ko‘paytuvchi 7 dan 9 gacha, ikkinchisi esa, 1 dan 9 gacha o‘zgaradi.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
for ($i = $a; $i <= $b; $i++)
for ($j = 1; $j <= 9; $j++)
{
echo"$i*$j=".$i*$j."<br>";
}
?>
<form action="4.7-masala.php"
method="post">
<p>Qiyi chegara= <input name="a"
type="text"></p>
<p>Yuqori chegara= <input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.8-masala. L nomerli Fibonachchi sonini ekranga chiqaring. Yechish. 1,1,2,3,5,8,13,21,34,...sonlar Fibonachchi sonlar ketma-ketligini ifodalaydi. Bu sonlar ketma-ketligida uchinchi hadidan boshlab har bir son o‘zidan oldingi ikkita sonning yig‘indisiga teng.

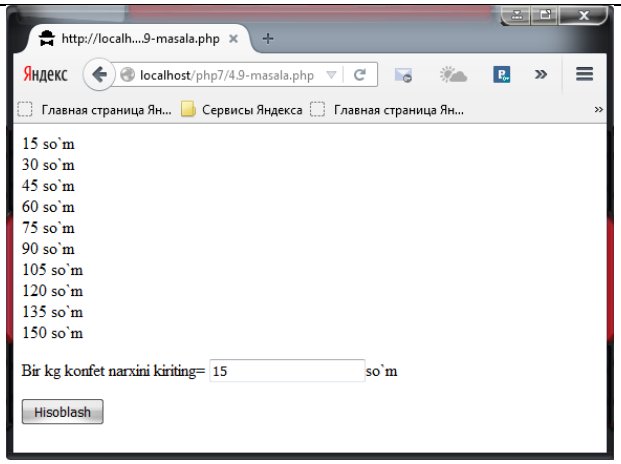
```
<?php
$n = $_POST['n'];
$S=0;
 for ($i = 1; $i <= $n; $i++)
{
if ($i==1)
$a=1;
else
$a=$a1+$a2;
echo "$a<br>";
$a1=$a2;
$a2=$a;
}
?>
<form action="4.8-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
```



```
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

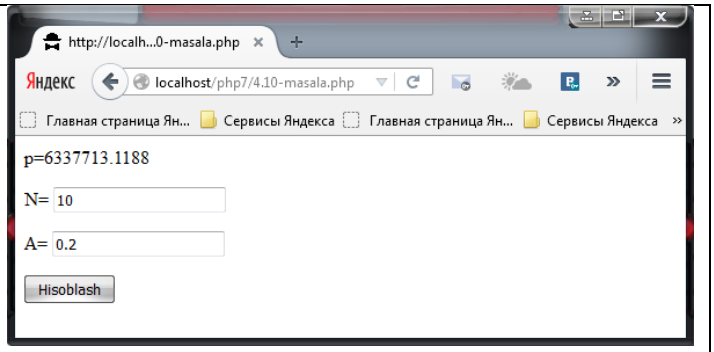
4.9-masala. Bir kilogramm konfetning narxi berilgan (haqiqiy son), 1, 2, ...,10 kg konfetning narxini chiqaruvchi dastur tuzing.

```
<?php
$n = $_POST['n'];
 for ($i = 1; $i <=10; $i++)
{
$S=$i*$n;
echo "$S so`m<br>";
}
?>
<form action="4.9-masala.php"
method="post">
<p>Bir kg konfet narxini kiriting= <input
name="n" type="text">so`m</p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



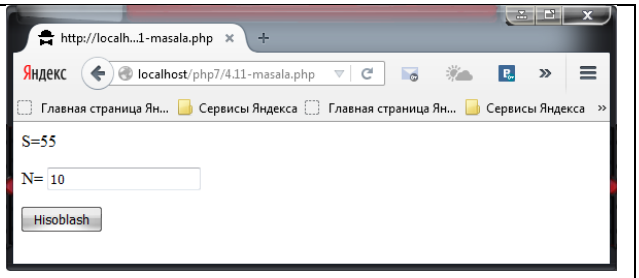
4.10-masala. N natural son va A haqiqiy son berilgan. Quyidagi ko‘paytmani hisoblang: p=A(A+1)(A+2)...(A+N). Yechish. Berilgan ko‘paytmani p bilan belgilaymiz.

```
<?php
$N = $_POST['N'];
$A = $_POST['A'];
$p=1;
for ($i = 1; $i <=$N; $i++)
{
$p=$p*($A+$i);
}
echo "p=$p";
?>
<form action="4.10-masala.php"
method="post">
<p>N= <input name="N"
type="text"></p>
<p>A= <input name="A"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



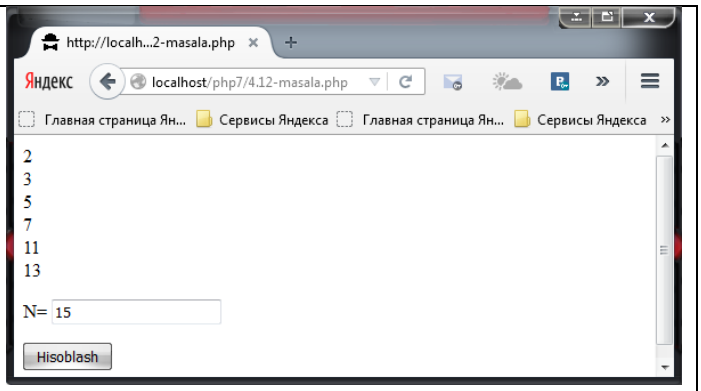
4.11-masala. Darajaga ko‘tarish amalini bajarmay, ushbu yig‘indini hisoblang: $S=\sum_{n=1}^{10}(-1)^n n^2$. Yechish. Bu masalani yechishda $(-1)^n$ ni hisoblash uchun yangi o‘zgaruvchi c=1 ni kiritamiz. Uning har galgi qiymatini -1 ga ko‘paytiramiz.

```
<?php
$N = $_POST['N'];
$c=-1;
$S=0;
for ($i = 1; $i <=$N; $i++)
{
$S=$S+$c*pow($i,2);
$c=-1*$c;
}
echo "S=$S";
?>
<form action="4.11-masala.php"
method="post">
<p>N= <input name="N"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



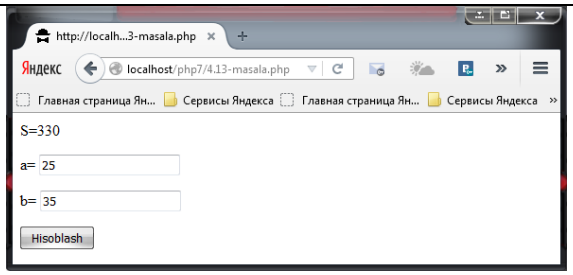
4.12-masala. Natural sonni tub ko‘paytuvchilarga ajratish dasturi.

```
<?php
$N = $_POST['N'];
for ($i = 2; $i <=$N; $i++)
{
$tub=true;
for ($j = 2; $j <=$i/2; $j++)
if ($i%$j==0){$tub=false; break;}
if($tub)
echo "$i<br>";
}
?>
<form action="4.12-masala.php"
method="post">
<p>N= <input name="N"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



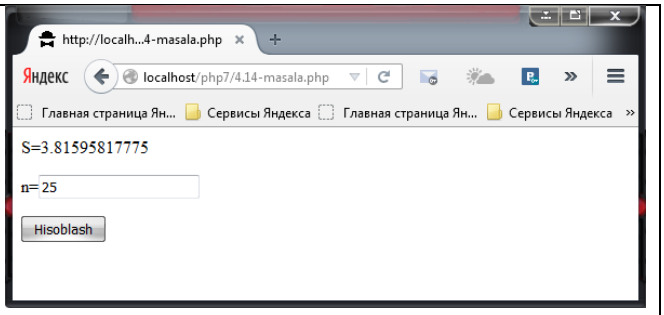
4.13-masala. a va b butun sonlari berilgan (a<b), a dan b gacha bo‘lgan barcha butun sonlar yig‘indisini chiqaruvchi dastur tuzing.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$S=0;
if ($a<$b)
{
for ($i = $a; $i <=$b; $i++)
{
$S=$S+$i;
}
}
echo "S=$S";
?>
<form action="4.13-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.14-masala. n butun soni berilgan (n>0). Quyidagi yig'indini hisoblovchi dastur tuzing: S=1+1/2+1/3+...+1/n.

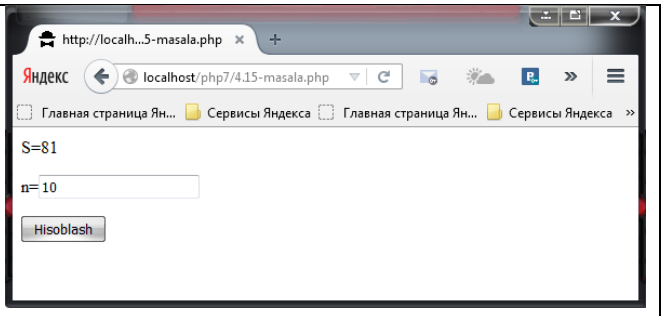
```
<?php
$n = $_POST['n'];
$S=0;
for ($i = 1; $i <=$n; $i++)
{
$S=$S+1/$i;
}
echo "S=$S";
?>
<form action="4.14-masala.php"
method="post">
<p>n=<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.15-masala. n butun soni berilgan (n>0). Shu sonning kvadratini quyidagi formula

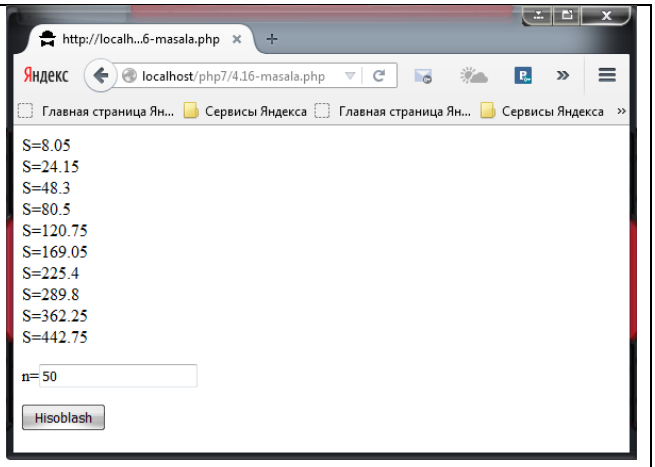
asosida hisoblovchi dasturini tuzing. S=1+3+5+...+(2*n-1).

```
<?php
$n = $_POST['n'];
$S=0;
for ($i =1; $i <$n; $i++)
{
$S=$S+(2*$i-1);
}
echo "S=$S";
?>
<form action="4.15-masala.php"
method="post">
<p>n=<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



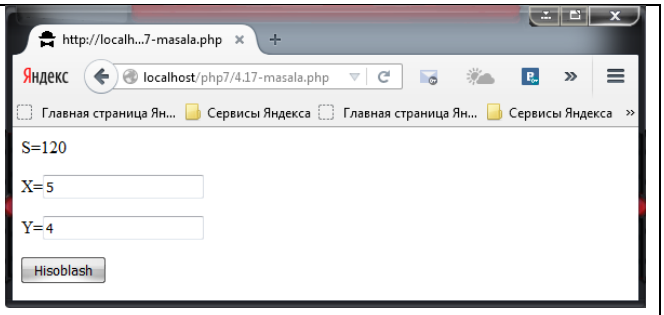
4.16-masala. 5 mildan 50 milgacha masofani 5 ga teng qadam bilan kilometrga o‘tkazing.

```
<?php
$n = $_POST['n'];
$S=0;
for ($i =5; $i <=$n; $i+=5)
{
$S=$S+$i*1.61;
echo "S=$S<br>";
}
?>
<form action="4.16-masala.php"
method="post">
<p>n=<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



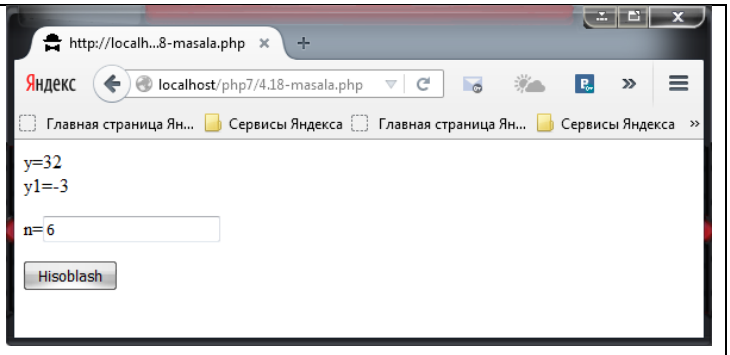
4.17-masala. Tomonlari X va Y ga teng to‘rtburchak yuzini X=3 dan 5 gacha Y=1 dan 4 gacha 1 ga teng qadam bilan o‘zgarganda hisoblang.

```
<?php
$X = $_POST['X'];
$Y = $_POST['Y'];
$S=0;
for ($i = 3; $i <=$X; $i++)
for ($j = 1; $j <=$Y; $j++)
{
$S=$S+$i*$j;
}
echo "S=$S";
?>
<form action="4.17-masala.php"
method="post">
<p>X=<input name="X"
type="text"></p>
<p>Y=<input name="Y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.18- masala. $y = 3x^2 + 4x - 10$ funksiyaning x o‘zgaruvchi 1) 0,1,2,3,4,5; 2) 0,3,6,9,12 ga teng qiymatlarni qabul qilgandagi ifodalarni hisoblash dasturi.

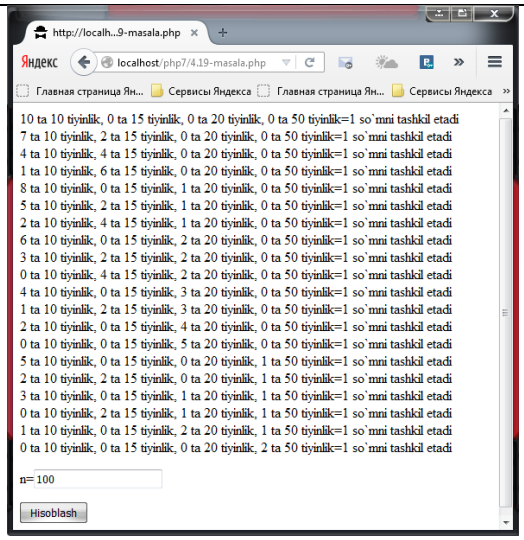
```
<?php
$n = $_POST['n'];
for ($i =0; $i <=$n; $i++)
{
if ($i-1)
{
$y=3*$i+4*$i-10;
}
elseif(3*i-3)
{
$y1=3*$i+4*$i-10;
}
}
echo"y=$y<br>";
echo"y1=$y1";
?>
<form action="4.18-masala.php"
method="post">
<p>n=<input name="n"
type="text"></p>
<p><input type="submit"
```



```
value="Hisoblash"></p>
</form>
```

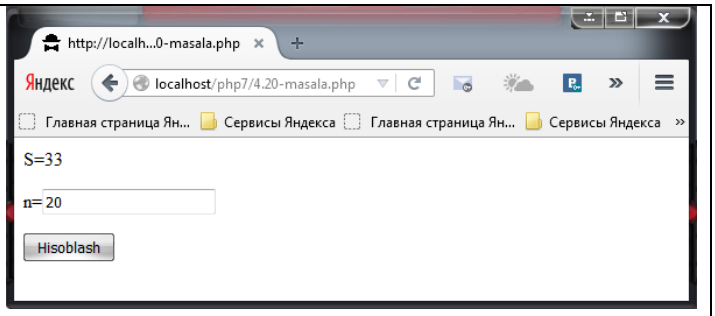
4.19-masala. 1 so‘mni 50, 20, 15, 10 tiyinlik tangalar bilan qanday usullar bilan maydalsh mumkin?

```
<?php
$n = $_POST['n'];
for ($l =0; $l <=2; $l++)
for ($k =0; $k <=5; $k++)
for ($j =0; $j <=7; $j++)
for ($i =0; $i <=10; $i++)
{
$S=$i*10+$j*15+$k*20+$l*50;
if ($S==$n)
{
echo "$i ta 10 tiyinlik, $j ta 15 tiyinlik, $k ta 20 tiyinlik, $l ta 50 tiyinlik=1 so`mni tashkil etadi<br>";
}
}
?>
<form action="4.19-masala.php"
method="post">
<p>n=<input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



4.20-masala. N butun soni berilgan. Quyidagi yig‘indini chiqaruvchi dastur tuzing. S=11+22+...+NN.

```
<?php
$n = $_POST['n'];
$S=0;
for ($i =1; $i <=$n; $i++)
{
$m=$i%10;
$y=floor($i/10);
$m1=$y%10;
if ($m==$m1)
{
$S=$S+$i;
}
}
```



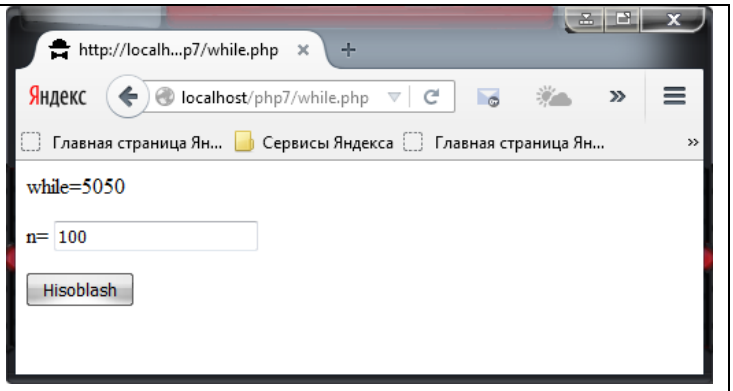
```
echo "S=$S";
?>
<form action="4.20-masala.php"
method="post">
<p>n=<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

4.3. TAKRORLANUVCHI WHILE OPERATORI TADBIQI

Operator **while** shartli sikl operatori deyiladi, siklga kirishda oldin shartli ifoda hisoblanadi, agar uning qiymati noldan farqli bo‘lsa sikl tanasi bajariladi. Shundan so‘ng shartli ifodani hisoblash va sikl tanasi operatorlarini bajarish, shartli ifoda qiymati nolga teng bo‘lguncha davom etadi. **While** operatoridan har xil ketma - ketliklarni ko‘rish qulay, agar ularda oldindan ma’lum so‘nggi simvol mavjud bo‘lsa. (Bu ayniqsa PHP tilida qulay, chunki PHP tilida satr bu char tipidagi nolinchi simvol bilan tugovchi simvollar ketma - ketligidir).

Quyidagi masalada 1 dan n gacha sonlarning yig‘indisini while da hisoblaymiz:

```
<?php
$n = $_POST['n'];
$S=0;
$i=1;
while($i <= $n)
{
$S=$S+$i;
$i=$i+1;
}
echo"while=$S";
?>
<form action="while.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



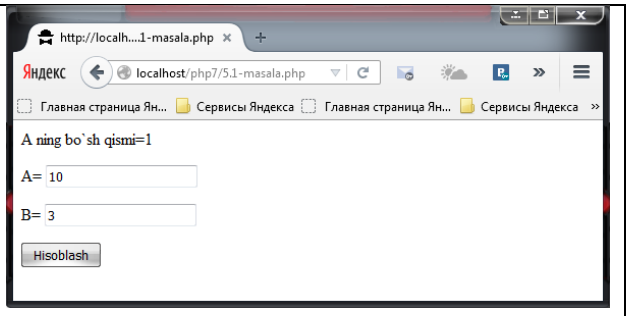
Cheksiz takrorlanish sikl ***while*** operatori yordamida quyidagicha hosil qilinadi:

```
while(1)
{
}
```

Bu ***while*(true)** yozuvning o‘zi.

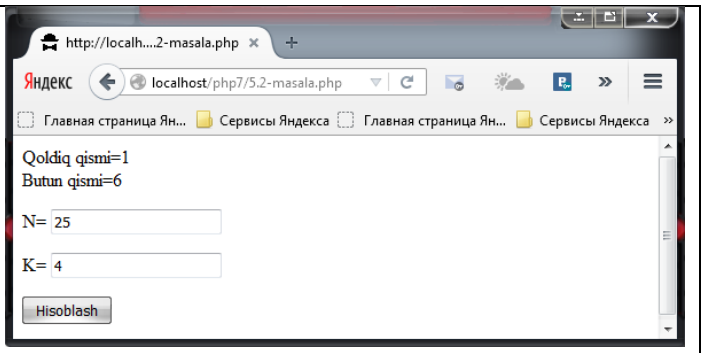
5.1-masala. A va B butun musbat sonlari berilgan (A>B). A usunlikdagi kesmada maksimal darajada B kesma joylashtirilgan. A kesmaning bo‘sh qismini aniqlovchi dastur tuzing. Ko‘paytirish va bo‘lish amallarini ishlatmang.

```
<?php
$A = $_POST['A'];
$B = $_POST['B'];
while ($B<$A)
{
$A=$A-$B;
}
echo "A ning bo‘sh qismi=$A";
?>
<form action="5.1-masala.php"
method="post">
<p>A= <input name="A" type="text"></p>
<p>B= <input name="B" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



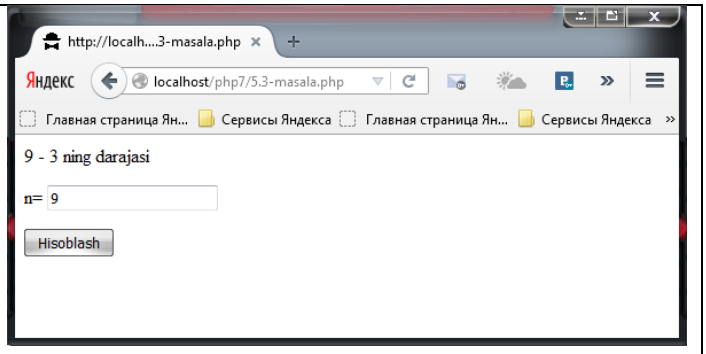
5.2-masala. N va K butun musbat sonlari berilgan. Faqat ayirish va qo‘shish amallarini ishlatib N sonini K soniga bo‘lgandagi qoldiq va butun qismini aniqlovchi dastur tuzing.

```
<?php
$N = $_POST['N'];
$K = $_POST['K'];
while ($K<$N)
{
$N=$N-$K;
$butun++;
}
echo "Qoldiq qismi=$N<br>";
echo "Butun qismi=$butun";
?>
<form action="5.2-masala.php"
method="post">
<p>N= <input name="N"
type="text"></p>
<p>K= <input name="K"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



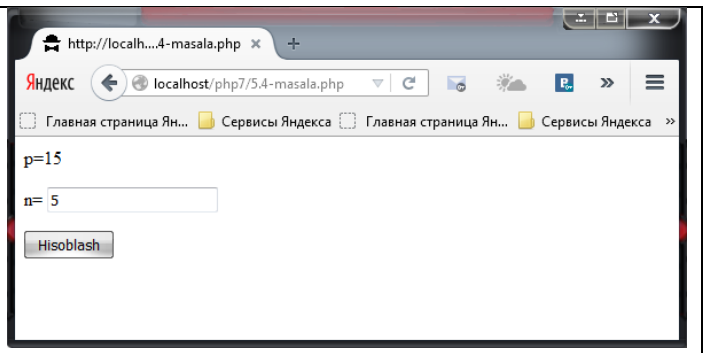
5.3-masala. n butun soni berilgan (n > **0).** Agar n soni **3** ning darajasi bo‘lsa ***3** - ning darajasi’. aks xolda ***3** - ning darajasi emas” degan natija chiqaruvchi dastur tuzing. Qoldiqli bo‘lish va bo‘lish amallarini ishlatmang.

```
<?php
$n = $_POST['n'];
$i=1;
while($i < $n)
{
$i*=3;
}
if($n==$i)
echo"$n - 3 ning darajasi";
else
echo"$n - 3 ning darajasi emas";
?>
<form action="5.3-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



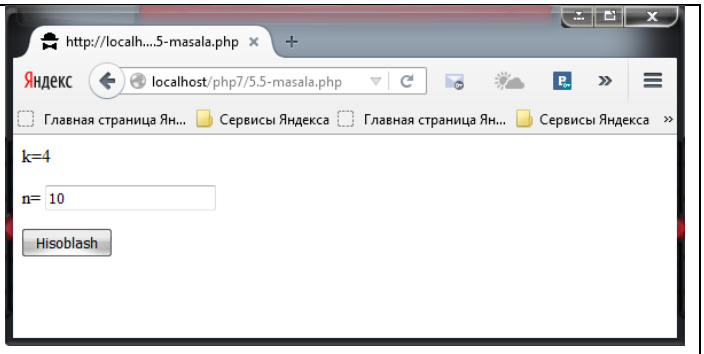
5.4-masala. n natural soni berilgan (n > 0**).** Quyidagi ifodani hisoblovchi dastur tuzing: n!! = n * (n - 2) * (n - 4**).** Agar n juft bo‘lsa oxirgi ko‘paytuvchi 2, toq bo‘lsa 1 bo'ladi.

```
<?php
$n = $_POST['n'];
$p=1;
while(2 <= $n)
{
$p=$p*$n;
$n=$n-2;
}
echo"p=$p";
?>
<form action="5.4-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



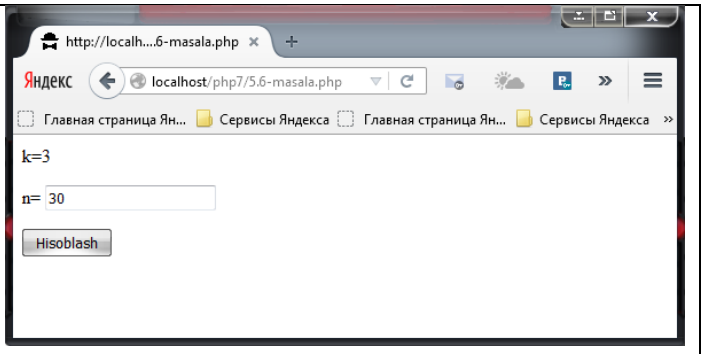
5.5-masala. n natural soni berilgan (n>0**).** Kvadrati n dan katta bo‘ladigan eng kichik butun к sonini (k^2>n) aniqlovchi dastur tuzing. Ildizdan chiqaruvchi funksiyadan foydalanmang.

```
<?php
$n = $_POST['n'];
$k=0;
while(!(pow($k,2)> $n))
{
$k++;
}
echo"k=$k";
?>
<form action="5.5-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



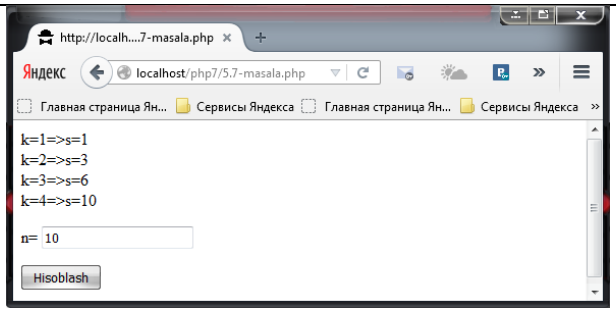
5.6-masala. n natural soni berilgan (n>1**).** 3^k<=n shartni qanoatlantiruvchi eng katta butun к sonini aniqlovchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$k=0;
while($n>=3)
{
$n/=3;
$k++;
}
echo"k=$k";
?>
<form action="5.6-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



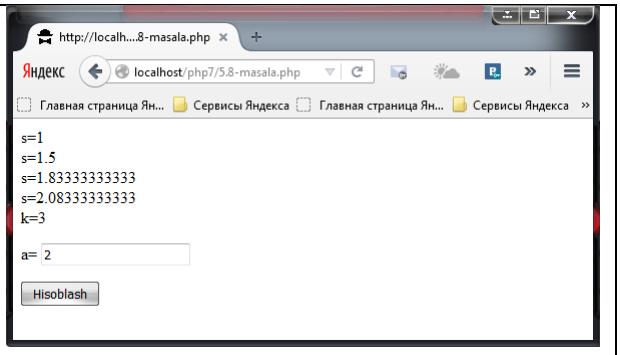
5.7-masala. n natural soni berilgan (n>1). (1+2+3+...+k)>=n shart bajariladigan eng kichik к sonini aniqlovchi dastur tuzing. 1 dan к gacha bo‘lgan yig‘indi ham ekranga chiqarilsin.

```
<?php
$n = $_POST['n'];
$k=0;
$s=0;
while($n>$s)
{
$k=$k+1;
$s=$s+$k;
echo"k=$k=>";
echo"s=$s<br>";
}
?>
<form action="5.7-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



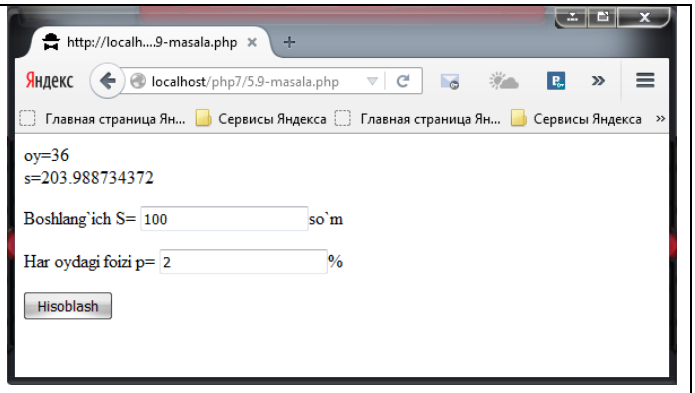
5.8-masala. a soni berilgan (a>1). (1+1/2+1/3+...+1/k)<=a shart bajariladigan eng katta к sonini aniqlovchi dastur tuzing. Yig‘indi ham ekranga chiqarilsin.

```
<?php
$a = $_POST['a'];
$k=0;
$s=0;
while($a>$s)
{
$k=$k+1;
$s=$s+1/$k;
echo"s=$s<br>";
}
if ($s>$a)
{
$s-=1/$k;
$k--;
}
echo"k=$k";
?>
<form action="5.8-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



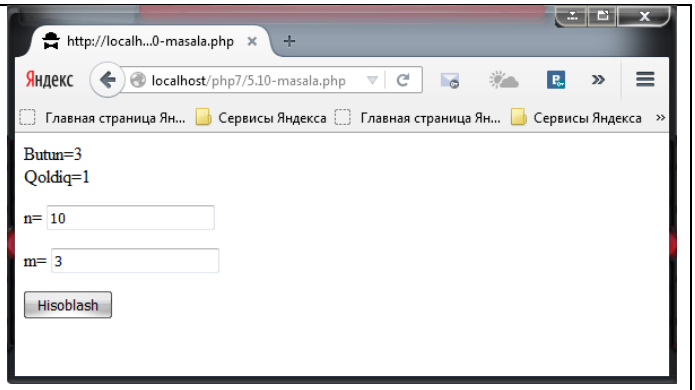
5.9-masala. Bankka boshlang‘ich S so‘m qo‘yildi. Har oyda bor bo‘lgan summa p foizga oshadi (0<p<25). Necha oydan keyin boshlang‘ich qiymat 2 martadan ko‘p bo‘lishini hisoblovchi dastur tuzing. Necha oy к-butun son. Bankda hosil bo‘ladigan summa haqiqiy son ekranga chiqarilsin.

```
<?php
$s = $_POST['S'];
$p = $_POST['p'];
$oy=0;
$b=2*$s;
while($b>$s)
{
$s+=$s*$p/100;
$oy++;
}
echo "oy=$oy<br>s=$s";
?>
<form action="5.9-masala.php"
method="post">
<p>Boshlang`ich S= <input name="S"
type="text">so`m</p>
<p>Har oydagi foizi p= <input
name="p" type="text">%</p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.10-masala. n va m butun musbat sonlari berilgan (n>m). n sonini m soniga bo‘lib butun hamda qoldiq qismlarini bo‘lish va qoldiqni olish amallarini ishlatmasdan topuvchi dastur tuzing.

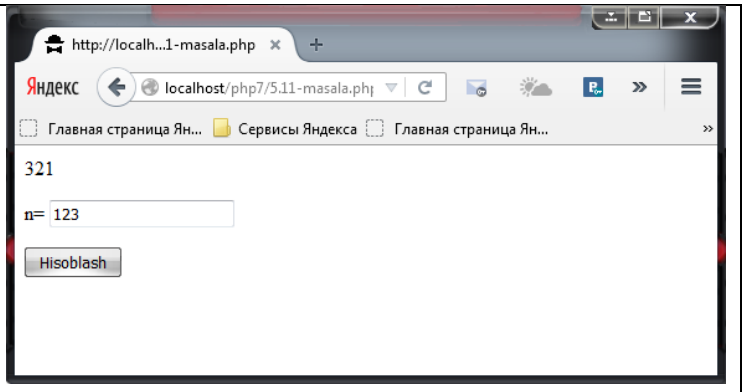
```
<?php
$n = $_POST['n'];
$m = $_POST['m'];
while($n>$m)
{
$n=$n-$m;
$butun++;
}
echo "Butun=$butun<br>Qoldiq=$n";
?>
<form action="5.10-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
```



```
<p>m= <input name="m"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

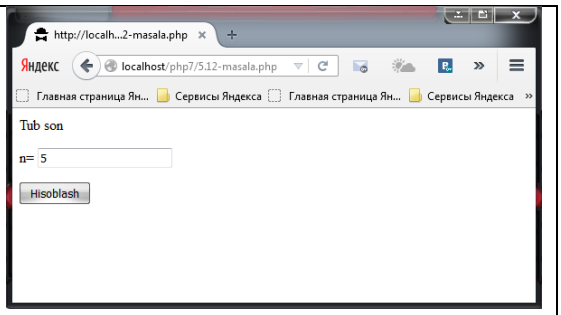
5.11-masala. n butun soni berilgan (n>0). Uni bo‘lib butun va qoldiq qismlarini aniqlash orqali, berilgan son raqamlarini teskari tartibda chiqaruvchi dastur tuzing.

```
<?php
$n = $_POST['n'];
while($n>0)
{
$i=$n%10;
$n=floor($n/10);
echo "$i";
}
?>
<form action="5.11-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.12-masala. n butun soni berilgan (n>1). n sonining tub yoki tub emasligini aniqlovchi dastur tuzing.

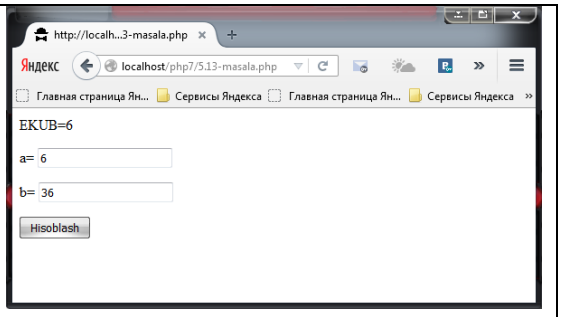
```
<?php
$n = $_POST['n'];
$i=2;
$j=2;
while($i<=$n)
{
$tub=true;
$i=$i+1;
while($j<=$i/2)
{
if ($i%$j==0)
{
$tub=false; break;
}
$j=$j+1;
}
```



```
}
if(!($tub))
echo "Tub son";
else
echo "Murakkab son";
?>
<form action="5.12-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

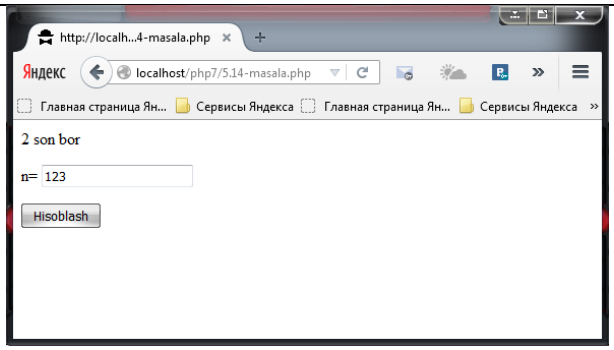
5.13-masala. a va b butun musbat sonlari berilgan. Berilgan sonlarning eng katta umumiy bo‘luvchisini aniqlovchi dastur tuzing.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
while ($a!=$b)
{
if ($a>$b)
$a=$a-$b;
else
$b=$b-$a;
}
echo "EKUB=$a";
?>
<form action="5.13-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



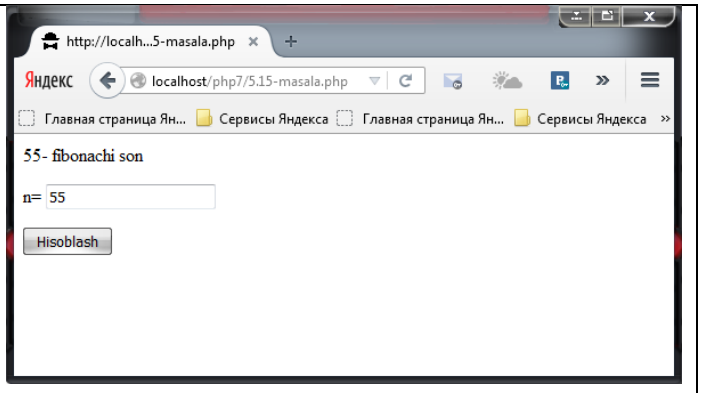
5.14-masala. n butun soni berilgan (n>0**)**. Uni bo‘lib butun va qoldiq qismlarini aniqlash orqali, berilgan son raqamlarining orasida 2 raqami bor yoki yo‘qligini aniqlovchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$bor=false;
while(0<$n)
{
$x=$n%10;
$n=$n/10;
if($x==2)
{
$bor=true;
}
}
if($bor)
echo "2 son bor";
else
echo "2 son yo`q";
?>
<form action="5.14-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.15-masala. n butun soni berilgan (n>1**).** n sonini Fibonachchi sonlari orasida bor yoki yo‘qligini aniqlovchi dastur tuzing. Fibonachchi sonlari quyidagi qonuniyat asosida topiladi. $F_1=1$; $F_2= 1$; $F_k=F_{k-2}+F_{k-1}$; $\kappa=3,4,...$

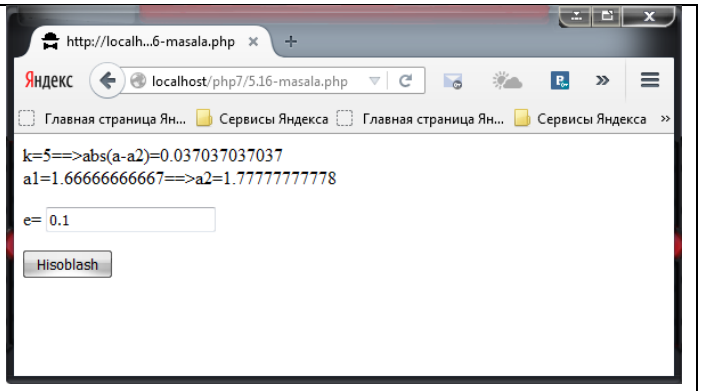
```
<?php
$n = $_POST['n'];
$f1=1;
$f2=1;
while ($f3<$n)
{
$f3=$f1+$f2;
$f1=$f2;
$f2=$f3;
}
if ($n==$f3)
echo"$n- fibonachi son<br>";
else
echo "$n- fibonachi son emas<br>";
?>
<form action="5.15-masala.php"
```



```
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

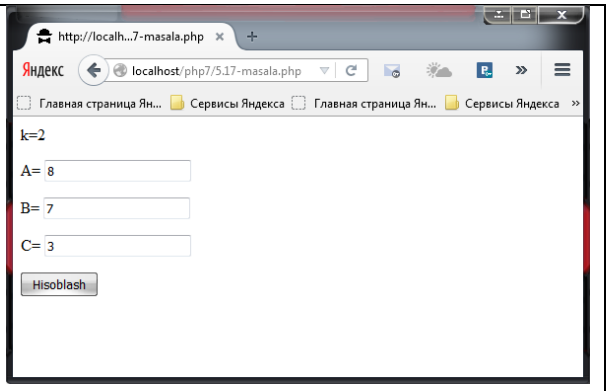
5.16-masala. e haqiqiy musbat soni berilgan. Ketma - ketlik xadlari quyidagicha aniqlanadi: $a_1=1$; $a_2=2$; $a_k=(a_{k-2}+2*a_{k-1})/3$; $\kappa=3,4,...$; $|a_k-a_{k-1}|<e$ shartni qanoatlantiruvchi eng kichik κ sonini aniqlovchi dastur tuzing. a_k va a_{k-1} ham ekranga chiqarilsin.

```
<?php
$e = $_POST['e'];
$a1=1;
$a2=2;
$k=2;
while (1)
{
$a=($a1+2*$a2)/3;
$k++;
if (abs($a-$a2)<$e)
{
$y=abs($a-$a2);
echo"k=$k==>abs(a-a2)=$y<br>";
echo "a1=$a1==>a2=$a2"; break;
}
$a1=$a2;
$a2=$a;
}
?>
<form action="5.16-masala.php"
method="post">
<p>e= <input name="e"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



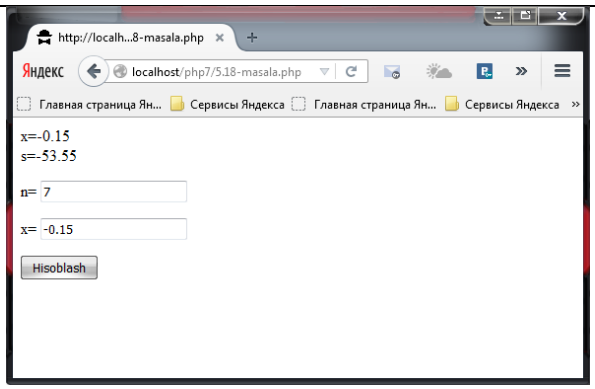
5.17-masala. A, B, C musbat butun sonlari berilgan. AxB to‘rtburchak ichida tomoni C bo‘lgan kvadratdan nechtasi joylashishini aniqlovchi dastur tuzing. Ko‘paytirish va bo‘lish amallarini ishlatmang.

```
<?php
$A = $_POST['A'];
$B = $_POST['B'];
$C = $_POST['C'];
$k=0;
while (($A>=$C) && ($B>=$C))
{
$A-=$C;
$B-=$C;
$k++;
}
$k*=2;
echo "k=$k";
?>
<form action="5.17-masala.php"
method="post">
<p>A= <input name="A" type="text"></p>
<p>B= <input name="B" type="text"></p>
<p>C= <input name="C" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.18-masala. n butun soni va x haqiqiy soni berilgan (n>0, |x|<1). Quyidagi yig‘indini hisoblovchi dastur tuzing:
x+1*x*3+1*3*x*5+...+1*3*...*(2*n-1)*x*(2n+1)

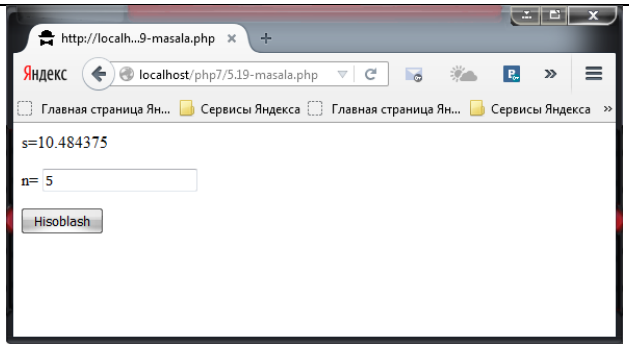
```
<?php
$n = $_POST['n'];
$x = $_POST['x'];
$s=0;
while ($i<$n)
{
if (abs($x)<1)
$s=$s+((2*$i-1)*$x*(2*$i+1));
$i=$i+1;
}
echo "x=$x<br>s=$s";
?>
<form action="5.18-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p>x= <input name="x"
type="text"></p>
```



```
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

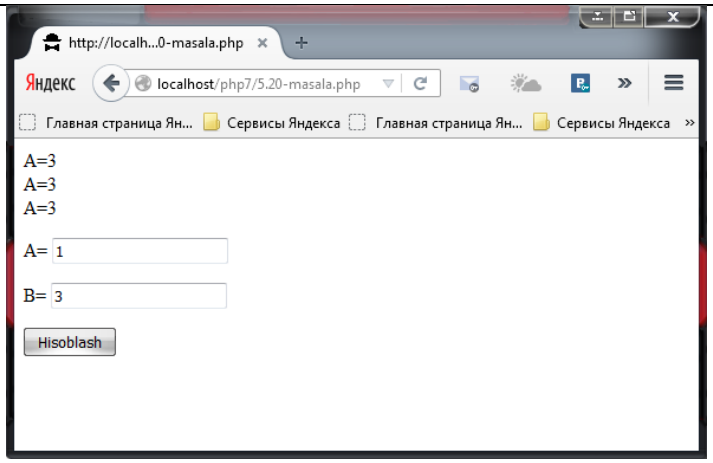
5.19-masala. n butun soni berilgan (n>0). Quyidagi ketma - ketlikning dastlabki n ta hadini chiqaruvchi dastur tuzing: A(0)=2; A(K)=2+1/A(K+1); K=1,2, ...

```
<?php
$n = $_POST['n'];
$s=0;
$A=2;
while ($k<$n)
{
$A+=$A;
$s=$s+2+1/$A;
$k=$k+1;
}
echo "s=$s";
?>
<form action="5.19-masala.php"
method="post">
<p>n= <input name="n" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.20-masala. A va B butun soni berilgan (A<B). A va B sonlari orasidagi barcha butun sonlarni chiqaruvchi dastur tuzing. Bunda har bir son o‘zining qiymaticha chiqarilsin, ya‘ni 3 soni 3 marta chiqariladi.

```
<?php
$A = $_POST['A'];
$B = $_POST['B'];
$n=0;
while ($B>$n)
{
if ($A<$B)
$A=$B;
echo "A=$A<br>";
$n++;
}
?>
<form action="5.20-masala.php"
method="post">
<p>A= <input name="A"
```



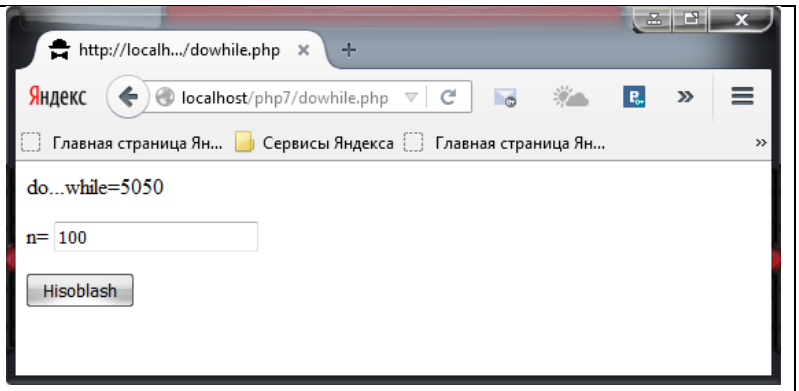
type="text"> B= <input name="B" type="text"> <input type="submit" value="Hisoblash"> </form>	

4.4. TAKRORLANUVCHI DO WHILE OPERATORI TADBIQI

Operator **do while** takrorlanuvchi operator keyingi shartli sikl operatori deyiladi. Ixtiyoriy xolda siklga kirilganda sikl tanasi bajariladi (ya'ni sikl juda bo'lmasa bir marta bajariladi) so'ngra shart hisoblanadi va agar u 0 bo'lsa yana sikl tanasi bajariladi.

Quyidagi masalada 1 dan n gacha sonlarning yig'indisini do…while da hisoblaymiz:

```
<?php
$n = $_POST['n'];
$S=0;
$i=1;
do
{
$S=$S+$i;
$i=$i+1;
}
while($i <= $n);
echo"do...while=$S";
?>
<form action="dowhile.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



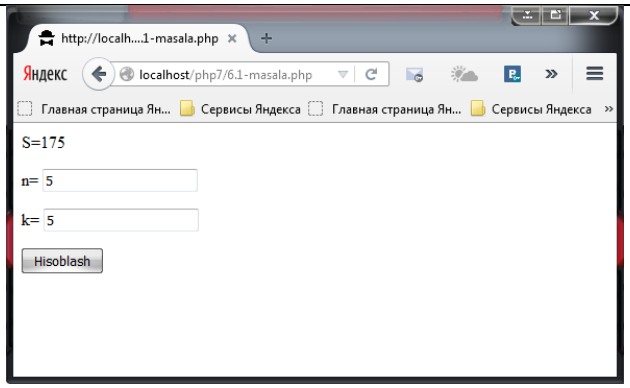
Cheksiz takrorlanish sikl do while operatori yordamida quyidagicha yoziladi:

do

while(1);

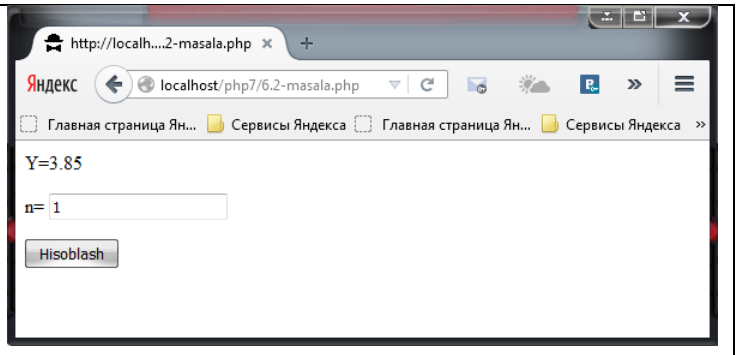
6.1-masala. N va K butun sonlari berilgan. Quyidagi yig'indini chiqaruvchi dastur tuzing. 1K+2K+…+NK

```
<?php
$n=$_POST['n'];
$k= $_POST['k'];
$S=0;
$i=1;
do
{
$S=$S+$i*10+$k;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.1-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p>k= <input name="k"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



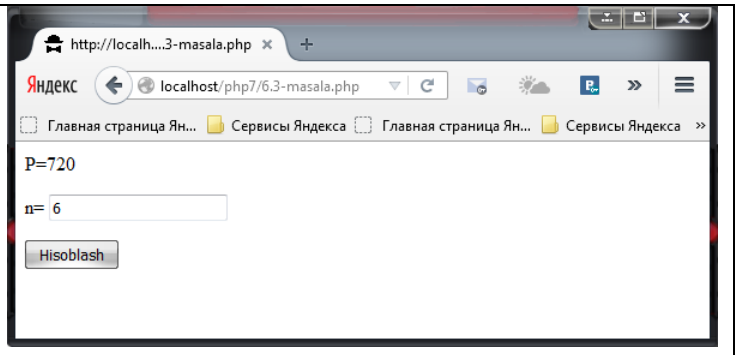
6.2-masala. $Y=X^2$ ni $[0,1]$ intervalda 0,1 qadam bilan hisoblangan qiymatlar jadvalini aniqlang.

```
<?php
$n = $_POST['n'];
$Y=0;
$i=0;
do
{
$Y=$Y+pow($i,2);
$i=$i+0.1;
}
while($i <= $n);
echo"Y=$Y";
?>
<form action="6.2-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



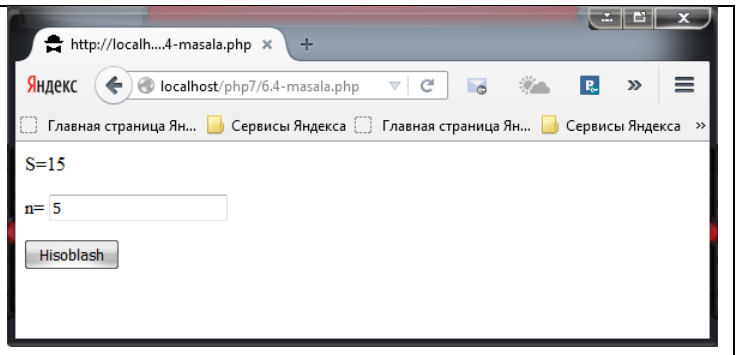
6.3-masala. 1 dan n gacha son berilgan. Ularning ko‘paytmasini chiqaruvchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$P=1;
$i=1;
do
{
$P=$P*$i;
$i=$i+1;
}
while($i <= $n);
echo"P=$P";
?>
<form action="6.3-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



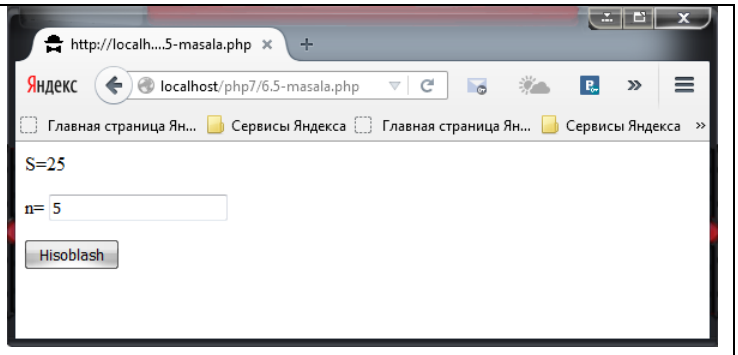
6.4-masala. 1+2+3+…+n=n*(n+1)/2 ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*($i+1))/2;
$i=$i+1;
}
while($i <= $n);
echo"S=$S";
?>
<form action="6.4-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



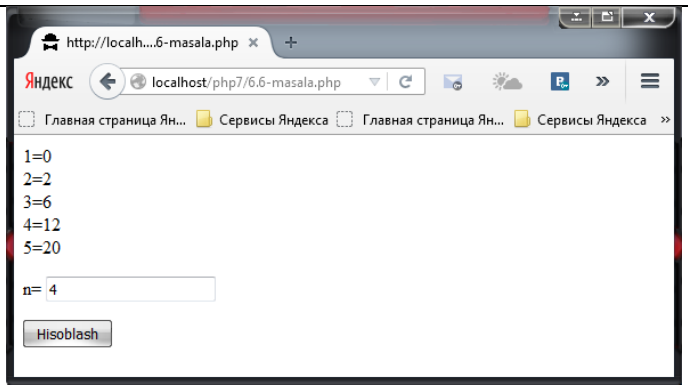
6.5-masala. 1+3+5+…+(2*n-1)=n^2 butun son berilgan. Faqat toq sonlarni va ularning sonini chiqaruvchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=pow($i,2);
$i=$i+1;
}
while($i <= $n);
echo"S=$S";
?>
<form action="6.5-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



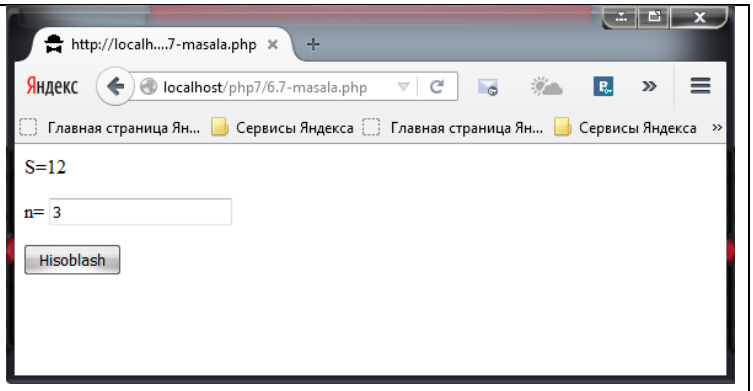
6.6-masala. 2+4+6+…+2*n=n*(n+1) butun son berilgan. Faqat juft sonlarni va ularning sonini chiqaruvchi dastur tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=$i*($i+1);
$i=$i+1;
echo"$i=$S<br>";
}
while($i <=$n);
?>
<form action="6.6-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



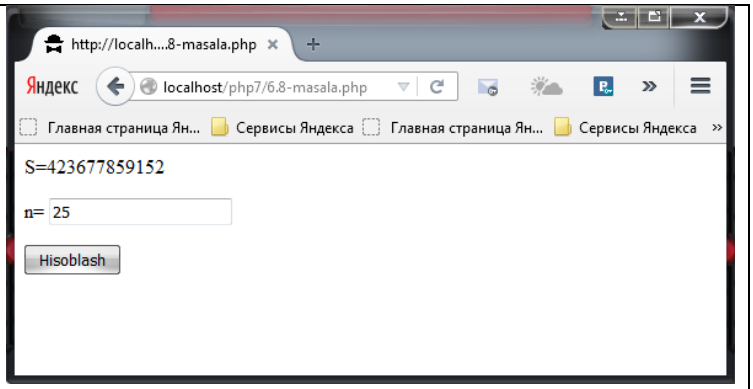
6.7-masala. 1+4+7+…+(3*n-2)=n*(3*n-1)/2 ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*(3*$i-1))/2;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.7-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



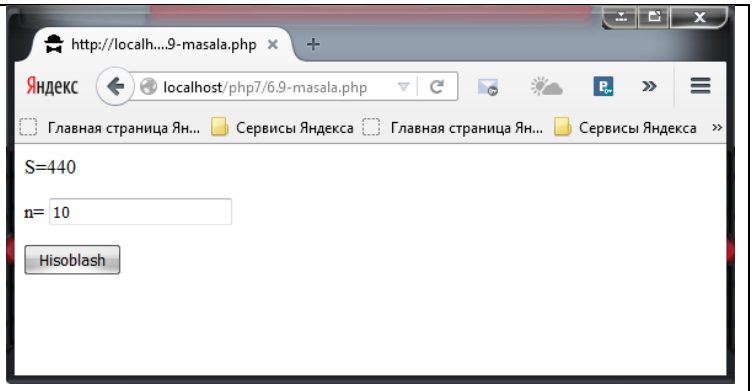
6.8-masala. $2+5+13+\ldots+(2^{n-1}+3^{n-1})=(3^n-1)/2+2^n-1$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=(pow(3,$i)-1)/2+(pow(2,$i)-1);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.8-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



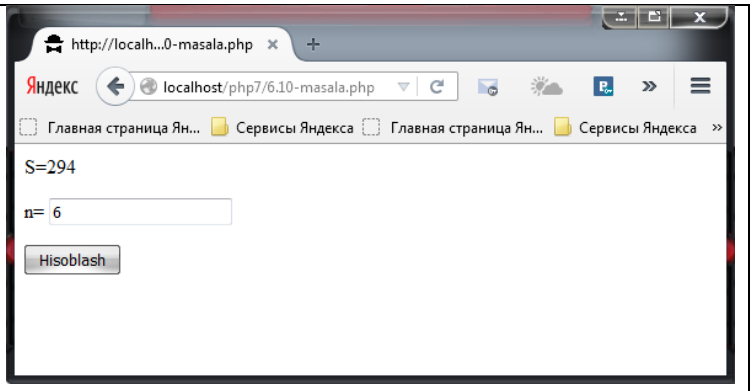
6.9-masala. $1*2+2*3+3*4+\ldots+n*(n+1)=(n*(n+1)*(n+2))/3$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*($i+1)*($i+2))/3;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.9-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



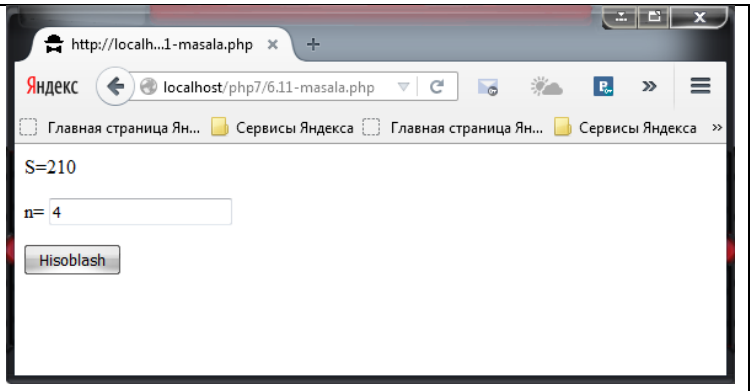
6.10-masala. 1*4+2*7+3*10+…+n*(3*n+1)=n*(n+1)^2 ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=$i*pow(($i+1),2);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.10-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



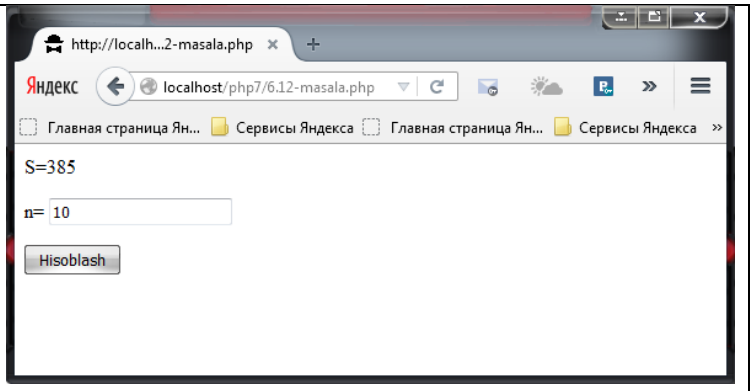
6.11-masala. 1*2*3+2*3*4+3*4*5+…+n*(n+1)*(n+2)=(n*(n+1)*(n+2)*(n+3))/4 ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*($i+1)*($i+2)*($i+3))/4;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.11-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



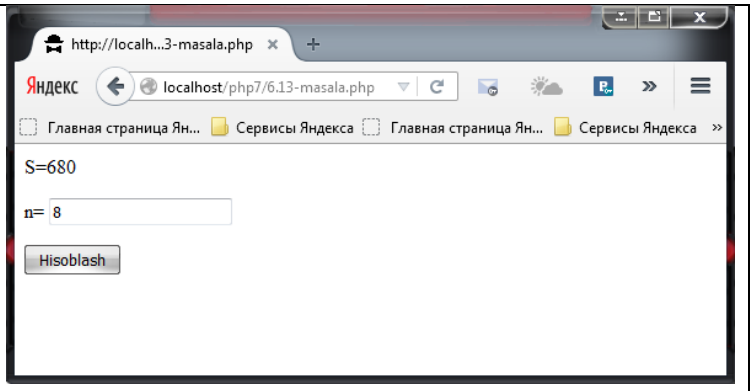
6.12-masala. $1^2+2^2+3^2+\ldots+n^2=(n*(n+1)*(2*n+1))/6$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*($i+1)*(2*$i+1))/6;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.12-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



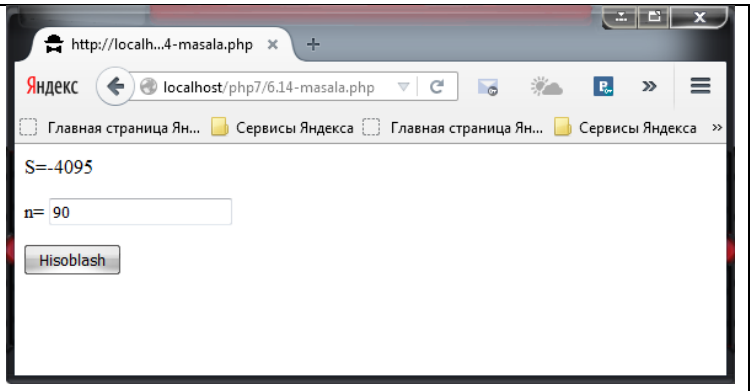
6.13-masala. $1^2+3^2+5^2+\ldots+(2*n^2-1)^2=(n*(4*n^2-1))/3$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*(4*pow($i,2)-1))/3;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.13-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



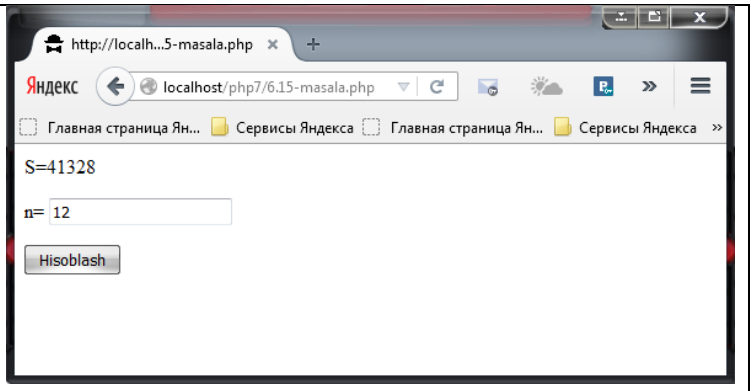
6.14-masala. $1^2-2^2+3^2-4^2+\ldots+(-1)^{n-1}*n^2=(-1)^{n-1}(n*(n+1))/2$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$c=-1;
$i=0;
do
{
$S=$c*($i*($i+1))/2;
$c=$c;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.14-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



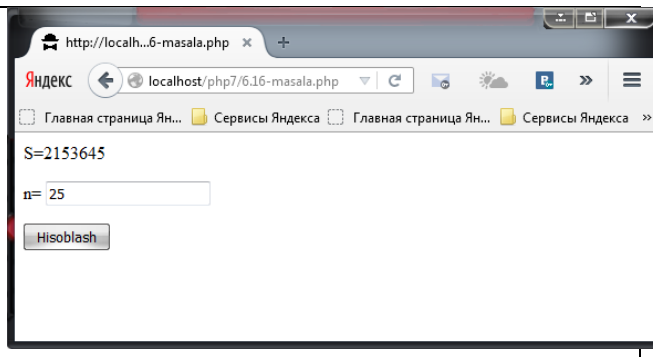
6.15-masala. $1^3+3^3+5^3+\ldots+(2*n-1)^3=(n^2*(2*n^2-1))$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=pow($i,2)*(2*pow($i,2)-1);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.15-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



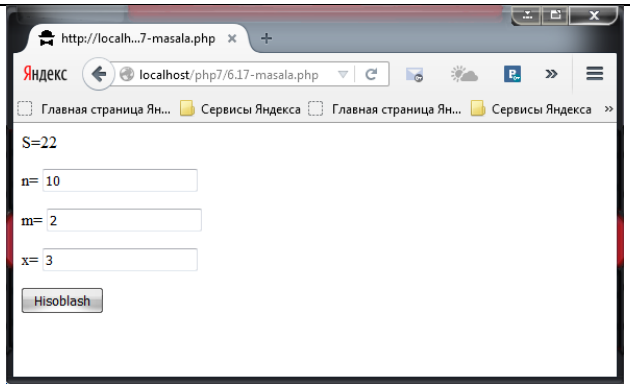
6.16-masala. $1^4+2^4+3^4+\ldots+n^4=(n*(n+1)*(2n+1)*(3*n^2+3n-1))/30$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*($i+1)*(2*$i+1)*(3*pow($i,2)+3*
$i-1))/30;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.16-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



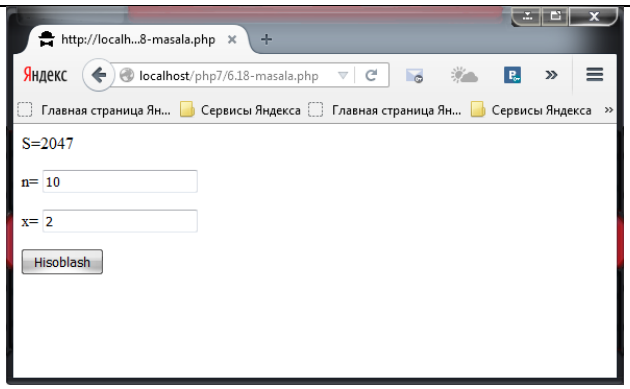
6.17-masala. $m+(m+x)+(m+2x)+\ldots+n=((n+m)*(n-m+x))/2x$ ifodani hisoblash dasturini tuzing.

```
<?php
$n=$_POST['n'];
$m=$_POST['m'];
$x= $_POST['x'];
$i=0;
do
{
$S=(($i+$m)*($i-$m+$x))/(2*$x);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.17-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p>m= <input name="m"
type="text"></p>
<p>x= <input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



6.18-masala. $1+x+x^2+x^3+\ldots+x^n=(4-x^n)/(1-x)$ ifodani hisoblash dasturini tuzing.

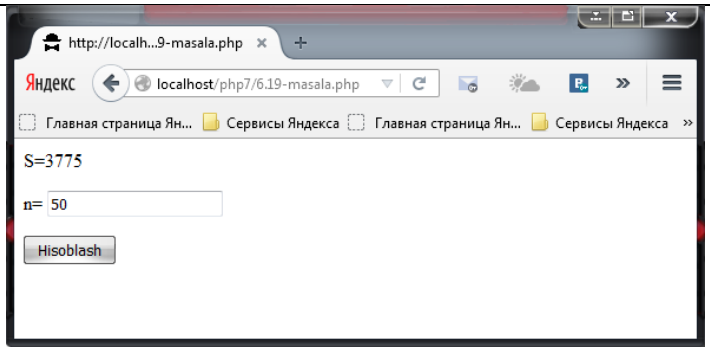
```
<?php
$n=$_POST['n'];
$x= $_POST['x'];
$i=0;
do
{
$S=(1-pow($x,$i+1))/(1-$x);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.18-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p>x= <input name="x"
type="text"></p>
```



<input type="submit" value="Hisoblash"> </form>	

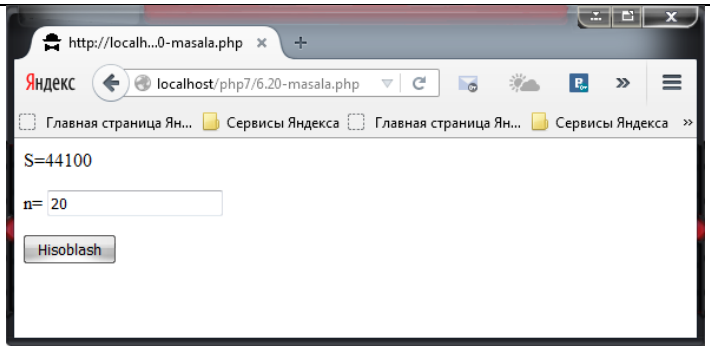
6.19-masala. 2+5+8+11+…+(3*n-1)= (n*(3*n-1))/2 ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=($i*(3*$i+1))/2;
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.19-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



6.20-masala. $1^3+2^3+3^3+\ldots+n^3=((n*(n+1))/2)^2$ ifodani hisoblash dasturini tuzing.

```
<?php
$n = $_POST['n'];
$i=0;
do
{
$S=pow(($i*($i+1))/2,2);
$i=$i+1;
}
while($i <=$n);
echo"S=$S";
?>
<form action="6.20-masala.php"
method="post">
<p>n= <input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
```



</form>	

4.5. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLAR

Topshiriq: 1) Quyidagi masalalarning PHP tilidagi dasturini for takrorlash operatoridan foydalanib tuzing:

4.1-masala. n butun soni berilgan (n > 0). Bir sikldan foydalangan holda quyidagi yig‘indini hisoblovchi dastur tuzing. (Olingan natija taxminan e=exp(1) ga yaqinlashadi). 1 + 1/(1!) + 1/(2!) + 1/(3!) + ... +1/(n!)

4.2-masala. n butun soni va x haqiqiy soni berilgan (n>0). Quyidagi yig‘indini hisoblovchi dastur tuzing. (Olingan natija taxminan e^x ga yaqinlashadi). $1+x+x^2/(2!)+x^3/(3!)+...+x^n/(n!)$.

4.3-masala. n butun soni va x haqiqiy soni berilgan (n>0). Quyidagi yig‘indini hisoblovchi dastur tuzing. (Olingan natija taxminan sin(x) ga yaqinlashadi) $x-x^3/(3!)+x^5/(5!)-...+(-1)^n\ x^{2n+1}/((2*n+1)!)$.

4.4-masala. n butun soni va x haqiqiy soni berilgan (n>0). Quyidagi yig‘indini hisoblovchi dastur tuzing. (Olingan natija taxminan cos(x) ga yaqinlashadi) $1-x^2/(2!)+x^4/(4!)-...+(-1)^n\ x^{2n}\ /((2*n)!)$.

4.5-masala. n butun soni va x haqiqiy soni berilgan (n>0, |x|<1). Quyidagi yig‘indini hisoblovchi dastur tuzing. $x-x^2/2+x^3/3-...+(-1)^n\ x^n/n$.

4.6-masala. n butun soni va x haqiqiy soni berilgan (n>0. |x|<1). Quyidagi yig‘indini hisoblovchi dastur tuzing. $x-x^3/3+x^5/5-...+(-1)^n\ x^{2n+1}/(2n+1)$.

4.7-masala. n butun soni va x haqiqiy soni berilgan (n>0. |x|<1). Quyidagi yig‘indini hisoblovchi dastur tuzing. $1+x/2-1*x^2/(2*4)+1*3*x^3/(2*4*6)-...+(-1)^n1*1*3*...*(2*n-3)*x^n/(2*4*..*(2*n))$.

4.8-masala. n butun soni va sonlar o‘qida 2 ta A. B nuqta berilgan. (A, B haqiqiy son). [A, B] kesmani teng n ta kesmaga bo‘ling. [A, B] kesmada ajratilgan barcha nuqtalarni chiqaring.

4.9-masala. n butun soni va sonlar o‘qida 2 ta A, B nuqta berilgan. (A, B haqiqiy son). [A, B] kesmani teng n ta kesmaga bo'ling. [A, B] kesmada ajratilgan barcha nuqtalar uchun F(X) = 1-sin(X) funksiya qiymatini hisoblang.

4.10-masala. n butun soni berilgan (n>0). Quyidagi ketma - ketlikning dastlabki n ta hadini chiqaruvchi dastur tuzing. $A_0 = 1; A_K=A_{K+1}/K; K = 1,2,...$

4.11-masala. n butun soni berilgan (n>1). Fibonachchi ketma - ketlikning dastlabki n ta hadini chiqaruvchi dastur tuzing. $F_1=1, F_2=1, F_K =F_{K-2}+F_{K-1}$, K=3,4,...

4.12-masala. n butun soni berilgan (n>1). Quyidagi ketma - ketlikning dastlabki n ta hadini chiqaruvchi dastur tuzing. $A_1=1, A_2=2, A_K=(A_{K-2}+2*A_{K-1})/3$, K=3,4,...

4.13-masala. n butun soni berilgan (n > 2). Quyidagi ketma - ketlikning dastlabki n ta hadini chiqaruvchi dastur tuzing. $A_1=1, A_2=2, A_3=3; A_K=A_K+A_{K-2}-2>A_{K-3}$: K=4,5,... ichma - ich ochilgan sikllar

4.14-masala. N butun soni berilgan. Quyidagi yig‘indini chiqaruvchi dastur tuzing. 11+22+...+NN.

4.15-masala. N butun soni berilgan. Quyidagi yig‘indini chiqaruvchi dastur tuzing. 1N+2N-1+...+N1.

4.16-masala. A va B butun soni berilgan (A < B). A va B sonlari orasidagi barcha butun sonlarni chiqaruvchi dastur tuzing. Bunda A soni 1 marta. (A + 1) soni 2 marta chiqariladi va xokazo.
4.17-masala. a va b butun sonlari berilgan (a<b). a va b sonlari orasidagi barcha butun sonlarni (a va b dan tashqari) kamayish tartibida chiqaruvchi va chiqarilgan sonlar sonini aniqlovchi dastur tuzing.
4.18-masala. Bir kilogram konfetning narxi berilgan (haqiqiy son). 1, 2, ..., 10 kg konfetning narxini chiqaruvchi dastur tuzing.
4.19-masala. a va b butun sonlari berilgan (a<b). a dan b gacha bo‘lgan barcha butun sonlar kvadratlarining yig‘indisini chiqaruvchi dastur tuzing.
4.20-masala. n butun soni berilgan (n > 0). Quyidagi yig'indini hisoblovchi dastur tuzing: S=1+1/2 +1/3+...+1/n.

Topshiriq: 2) Quyidagi masalaning PHP tilidagi dasturini while takrorlash operatoridan foydalanib tuzing:

5.1-masala. κ va n butun sonlari berilgan (n>0). κ sonini n marta chiqaruvchi dastur tuzing.
5.2-masala. a va b butun sonlari berilgan (a<b). a va b sonlari orasidagi barcha butun sonlarni (a va b ni ham) chiqaruvchi va chiqarilgan sonlar sonini aniqlovchi dastur tuzing. (a va b ham chiqarilsin).
5.3-masala. Bir kilogram konfetning narxi berilgan (haqiqiy son). 0.1, 0.2, ..., 0.9, 1 kg konfetni narxini chiqaruvchi dastur tuzing.
5.4-masala. Bir kilogram konfetning narxi berilgan (haqiqiy son). 1.2, 1.4, ..., 2 kg konfetni narxini chiqaruvchi dastur tuzing.
5.5-masala. a va b butun sonlari berilgan (a<b). a dan b gacha bo‘lgan barcha butun sonlar yig‘indisini chiqaruvchi dastur tuzing.
5.6-masala. a va b butun sonlari berilgan (a<b). a dan b gacha bo‘lgan barcha butun sonlar ko‘paytmasini chiqaruvchi dastur tuzing.
5.7-masala. n butun soni berilgan (n>0). Quyidagi yig‘indini hisoblovchi dastur tuzing. $S=n^2+(n+1)^2+(n+2)^2+\ldots (2*n)^2$
5.8-masala. n butun soni berilgan (n>0). Quyidagi ko‘paytmani hisoblovchi dastur tuzing. S = 1.1 * 1.2 * 1.3 *... (n ta ko‘paytuvchi)
5.9-masala. n butun soni berilgan (n>0). Quyidagi yig‘indini hisoblovchi dastur tuzing. $S=1.1-1.2+1.3-\ldots+(-1)^n*1.$n ta qo‘shiluvchi, ishoralar almashib keladi. Shart operatoridan foydalanmang)
5.10-masala. n butun soni berilgan (n>0). Shu sonning kvadratini quyidagi formula asosida hisoblovchi dastur tuzing. $n^2=1+3+5+\ldots+(2*n-1)$ har bir qo‘shiluvchidan keyin natijani ekranga chiqarib boring. Natijada ekranda 1 dan n gacha bo‘lgan sonlar kvadrati chiqariladi.
5.11-masala. n butun soni va a haqiqiy soni berilgan (n>0). a ning n-darajasini aniqlovchi dastur tuzing. $a^n=a*a*a\ldots a$;
5.12-masala. n butun soni va a haqiqiy soni berilgan (n>0). Bir sikldan foydalanib a ning 1 dan n gacha bo‘lgan barcha darajalarini chiqaruvchi dastur tuzing.
5.13-masala. n butun soni va a haqiqiy soni berilgan (n>0). Bir sikldan foydalanib a

ning 1 dan n gacha bo'lgan barcha darajalarini chiqaruvchi va yig‘indini hisoblovchi dastur tuzing. $1+a+a^2+a^3+...+a^n$.

5.14-masala. n butun soni va a haqiqiy soni berilgan (n>0). Bir sikldan foydalanib a ning 1 dan n gacha bo‘lgan barcha darajalarini chiqaruvchi va yig‘indini hisoblovchi dastur tuzing. $1-a+a^2-a^3+...+(-1)^n*a^n$.

5.15-masala. n butun soni berilgan (n>0). 1 dan n gacha bo‘lgan sonlar ko‘paytmasini chiqaruvchi dastur tuzing. n! =1*2*...*n. Birdan n gacha bo‘lgan sonlar ko‘paytmasi n faktorial deyiladi.

5.16-masala. n butun soni berilgan (n>0). Bir sikldan foydalangan holda quyidagi yig‘indini hisoblovchi dastur tuzing. 1! + 2! + 3! + ... +n!

5.17-masala. Sportchi birinchi kuni 10 km yugirib boshladi. Keyingi kunlari oldingi kunga nisbatan p foiz ko‘p yugurdi (0<p<50). Sportchining necha kundan keyin jami yugurgan masogasi 200 km dan oshadi? Jami kunlar soni va masofani (butun son) chiqaruvchi dastur tuzing.

5.18-masala. n butun soni berilgan (n>0). Uni bo‘lib butun va qoldiq qismlarini aniqlash orqali, berilgan son raqamlari yig‘indisini va raqamlari sonini chiqaruvchi dastur tuzing.

5.19-masala. n butun soni berilgan (n>1)**.** n sonidan katta bo‘lgan birinchi Fibonachchi sonini aniqlovchi dastur tuzing

5.20-masala. Fibonachchi soni bo‘lgan n butun soni berilgan (n>1). Fibonachchi n sonidan bitta oldingi va bitta keyingi Fibonachchi sonlarini chiqaruvchi dastur tuzing.

Topshiriq: 3) Quyidagi masalaning PHP tilidagi dasturini do while takrorlash operatoridan foydalanib tuzing:

6.1-masala. A va **B** butun musbat sonlari berilgan (A>B). A usunlikdagi kesmada B kesmadan nechta joylashtirish mumkinligini aniqlovchi dastur tuzing. Ko‘paytirish va bo‘lish amallarini ishlatmang.

6.2-masala. 2 sonining qandaydir darajasini bildiruvchi n butun soni berilgan (n>0). $n = 2^k$, к ni aniqlovchi dastur tuzing.

6.3-masala. n natural soni berilgan (n>0). Kvadrati n dan katta bo‘lmagan eng katta butun к sonini (k^2<=n) aniqlovchi dastur tuzing. Ildizdan chiqaruvchi funksiyadan foydalanmang.

6.4-masala. n natural soni berilgan (n>1). 3^k>n shartni qanoatlantiruvchi eng kichik butun к sonini aniqlovchi dastur tuzing.

6.5-masala. n natural soni berilgan (n>1). Ushbu (1+2+3+...+k)<=n shart bajariladigan eng katta к sonini aniqlovchi dastur tuzing. 1 dan к gacha bo‘lgan yig‘indi ham ekranga chiqarilsin.

6.6-masala. a soni berilgan (a>1). Ushbu (1+1/2+1/3+...+1/k)>=a shart bajariladigan eng kichik к sonini aniqlovchi dastur tuzing. Yig‘indi ham ekranga chiqarilsin.

6.7-masala. n butun soni berilgan (n>0). Uni bo‘lib butun va qoldiq qismlarini aniqlash orqali, berilgan son raqamlarining orasida toq raqamlar bor yoki yo‘qligini aniqlovchi dastur tuzing.

6.8-masala. Fibonachchi soni bo‘lgan n butun soni berilgan (n>1). Fibonachchi n soni Fibonachchi ketma - ketligining nechanchi xadi ekanini aniqlovchi dastur tuzing.

6.9-masala. e haqiqiy musbat soni berilgan. Ketma - ketlik xadlari quyidagicha aniqlanadi: $a_1=2$; $a_k=2+1/a_{k-1}$; к = 2, 3, ... $|a_k - a_{k-1}|<e$ shartni qanoatlantiruvchi eng kichik к sonini aniqlovchi dastur tuzing. a_k va a_{k-1} ham ekranga chiqarilsin.

6.10-masala. 5 ta haqiqiy son berilgan. Ularning ko‘paytmasini chiqaruvchi dastur tuzing.

6.11-masala. O‘nta haqiqiy son berilgan. Ularning o‘rta arifmetigini chiqaruvchi dastur tuzing.

6.12-masala. n natural soni va n ta haqiqiy musbat son berilgan. Shu sonlarning faqat butun qismlarini va butun qismlarining yig‘indisini chiqaruvchi dastur tuzing.

6.13-masala. n natural soni va n ta haqiqiy musbat son berilgan. Shu sonlarning faqat kasr qismlarini va kasr qismlarining ko‘paytmasini chiqaruvchi dastur tuzing.

6.14-masala. n natural soni va n ta haqiqiy son berilgan. Shu sonlarni yaxlitlang va ekranga chiqaring. Ya‘ni butun son ko'rinishiga keltiring. Yaxlitlangan sonlar yig‘indisini chiqaring.

6.15-masala. n natural soni va n ta butun son berilgan. Faqat toq sonlarni va ularning sonini chiqaruvchi dastur tuzing.

6.16-masala. n, к natural sonlari va n ta butun son berilgan. Agar shu sonlar orasida к sonidan kichik son bo‘lsa true, aks holda false chiqarilsin.

6.17-masala. k butun soni va nol soni bilan tugovchi butun sonlar to‘plami berilgan. k sonidan katta bo‘lgan birinchi son nomerini chiqaruvchi dastur tuzing. Agar bunday son bo‘lmasa nol chiqarilsin.

6.18-masala. n natural soni va n ta butun son berilgan. Bu sonlar orasidan o‘ng qo‘shnisidan kichiklarini va ularning sonini chiqaruvchi dastur tuzing.

6.19-masala. n natural soni va n ta butun son berilgan. Bu sonlar orasida kamida **2** ta nol bor. Oxirgi **2** ta nol orasidagi sonlar yig‘indisini chiqaruvchi dastur tuzing.

6.20-masala. n natural soni va n ta butun son berilgan. Bu sonlar orasida kamida **2** ta nol bor. Birinchi va oxirgi nol orasidagi sonlar yig'indisini chiqaruvchi dastur tuzing.

V BOB. PHP DA FUNKSIYALAR

5.1. Funksiyalarni ta’riflash va chaqirish

PHP7 da funksiya argumenti toifalarini xususan, skalyar (tipi, o‘garuvchi) toifalarni ham ko‘rsatish imkoniyati kiritilgan. Bunda argument funksiyaga uzatilganda qiymatlar avtomatik tarzda kerakli toifaga o‘giriladi.

Funksiya **function** kalit so‘zi yordamida e’lon qilinadi. Bu kalit so‘zdan so‘ng figurali qavs ichida funksiya tanasini hosil qiluvchi har xil operatorlar yoziladi:

function* Funksiya_nomi*(int $a)
{
// operatorlar
}

Agar funksiya argumentlar qabul qilsa, ular funksiya ta’rifida o’zgaruvchilar sifatida yoziladi. **Funksiya argumenti** funksiya tanasiga keyingi amallarda qo‘llanish uchun uzatiladigan o‘zgaruvchidir. Agar funksiya bittadan ko‘p argumentga ega bo‘lsa, bu argumentlar vergul bilan ajratiladi:

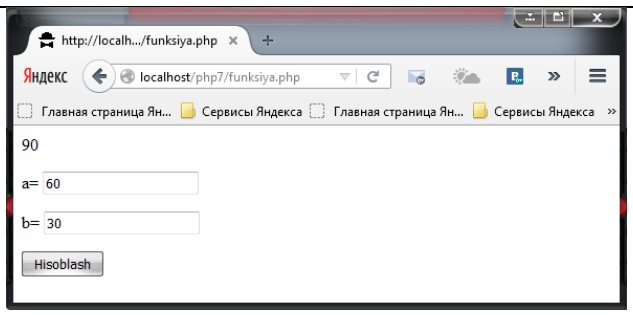
function* Funksiya_nomi*(int $a, int $b, int $c)

Agar funksiya biror qiymatni qaytarsa, funksiya tanasida albatta **return** operatori mavjud bo‘lishi kerak:

function* MyFunction*()
{
***return* $ret;** *// $ret o‘zgaruvchi qiymati qaytariladi*
}

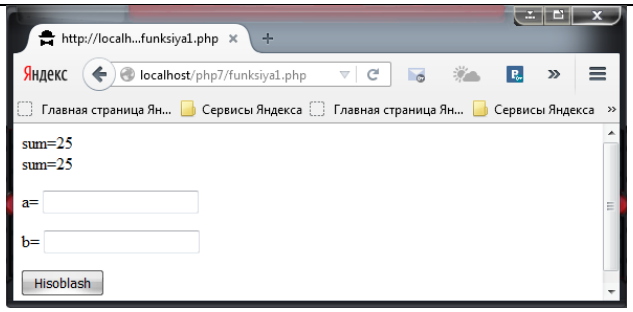
Sodda funksiyaga misol.

```
<?php
  Function ikkita_sum()
  {
$a = $_POST['a'];
$b = $_POST['b'];
   $sum = $a + $b;
    return $sum;
  }
  echo(ikkita_sum());
 ?>
<form action="funksiya.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



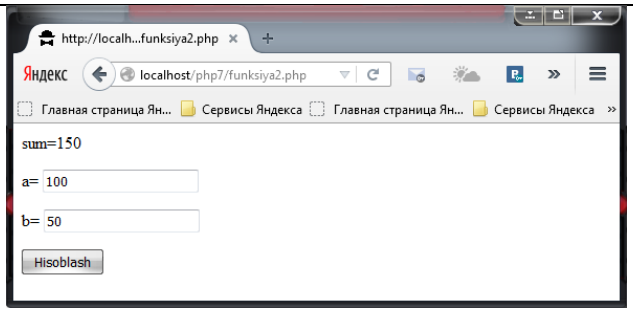
Bu misolda ikki son yig‘indisini xisoblovchi funksiya ko‘rsatilgan. Bu funksiya birorta argument qabul qilmaydi, yig‘indini hisoblab natijani chiqaradi. Shundan so‘ng **echo** operatori tanasida natijani brauzerga chiqarish uchun chaqiriladi. Bu funksiyani shunday o‘zgartiramizki, qiymatni qaytarmasdan, brauzerga chiqarsin. Buning uchun **echo** operatorini funksiya tanasiga kiritish etarli:

```
<?php
  Function ikkita_sum()
  {
$a = $_POST['a'];
$b = $_POST['b'];
   $sum = $a + $b;
    echo "sum=$sum<br>";
  }
  ikkita_sum();
  ikkita_sum();
 ?>
<form action="funksiya1.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



$a va **$b** o‘zgaruvchilarni argument sifatida e’lon qilishimiz mumkin, bu xolda funksiya tanasida ularni tariflash talab etilmaydi.

```
<?php
  Function ikkita_sum(int $a, int $b)
  {
   $sum = $a + $b;
    echo "sum=$sum";
  }
$a = $_POST['a'];
$b = $_POST['b'];
  ikkita_sum($a,$b);
  ?>
<form action="funksiya2.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
```

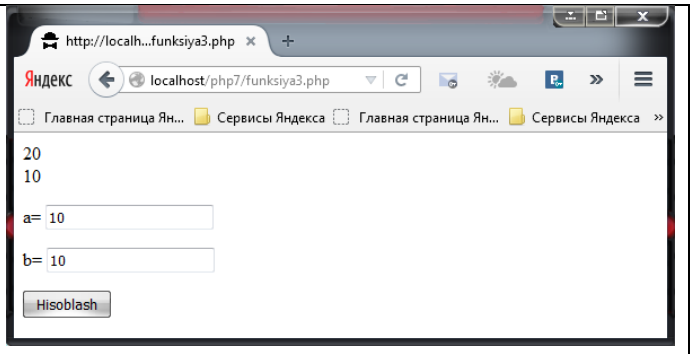


type="text"> <input type="submit" value="Hisoblash"> </form>	

Argument orqali uzatilgan qiymatni o‘z ichiga oluvchi o‘zgaruvchi, funksiya **parametri** deyiladi.

Ko‘rilgan misollarda funksiya argumenti qiymati bo‘yicha uzatiladi, ya’ni argumentlar funksiya ichida o‘zgarib, ular funksiya tashqarisidagi qiymatlarga ta’sir qilmaydi:

```
<?php
  Function ikkita_sum(int $a)
  {
   $sum = $a + 10;
    return $sum;
  }
$a = $_POST['a'];
$b = $_POST['b'];
echo(ikkita_sum($a)."<br>");
echo($b);
   ?>
<form action="funksiya3.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

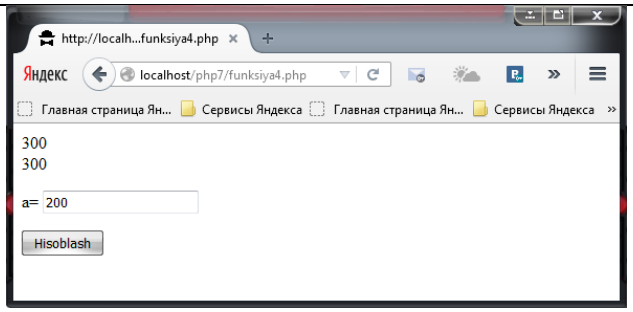


Funksiyaga uzatilgan o‘zgaruvchilar funksiyadan chiqishda qiymatlarini saqlab qolishlari uchun, prametrlarni ilova bo‘yicha uzatish qo‘llanadi. Buning uchun o‘zgaruvchi nomi oldidan ampersand (**&**) belgisi qo‘yiladi:

***function* get_sum(*$a, $b, &$c*)**

Bu holda **$a** va **$b** o‘zgaruvchilar qiymat bo‘yicha va **$c** o‘zgaruvchi bo‘lsa ilova bo‘yicha uzatiladi. Agar argument ilova bo‘yicha uzatilsa parametr ixtiyoriy o‘zgarishida, o‘zgaruvchi argument ham o‘zgaradi:

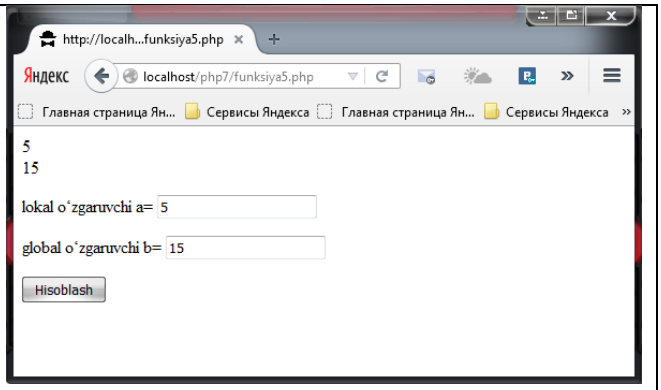
```
<?php
  Function ikkita_sum(&$a)
  {
   $a = $a + 100;
    return $a;
  }
$a = $_POST['a'];
echo(ikkita_sum($a));
echo("<br>$a");
   ?>
<form action="funksiya4.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.2. O‘ZGARUVCHILARNING KO‘RINISH SOHASI

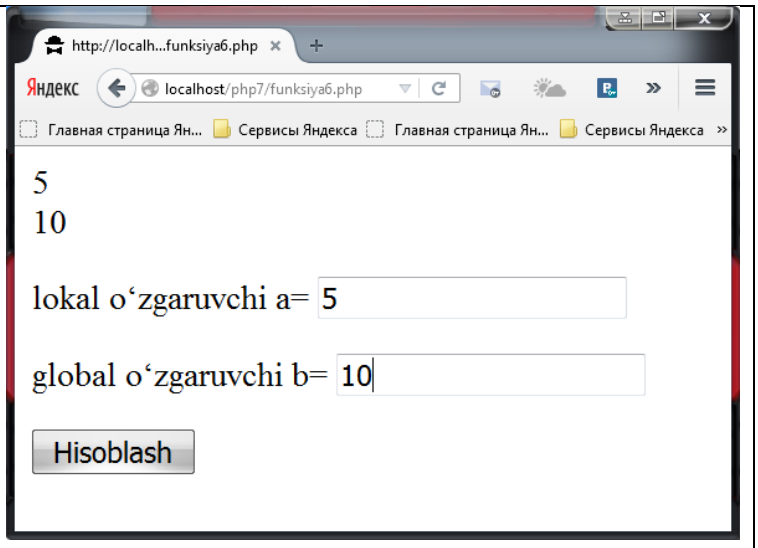
O‘zgaruvchilar funksiyalarda lokal ko‘rinish sohasiga ega. Bu shuni bildiradiki, hatto lokal va tashqi o‘zgaruvchilar bir xil nomga ega bo‘lsa ham, lokal o‘zgaruvchi o‘zgarishi tashqi o‘zgaruvchiga ta’sir qilmaydi.

```
<?php
function get_sum()
{
$a = $_POST['a']; // lokal o‘zgaruvchi
echo $a;
}
  $b = $_POST['b']; // global o‘zgaruvchi
  get_sum(); // lokal o‘zgaruvchi
  echo("<br>$b"); // global o‘zgaruvchi
?>
<form action="funksiya5.php"
method="post">
<p>lokal o‘zgaruvchi a= <input
name="a" type="text"></p>
<p>global o‘zgaruvchi b= <input
name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



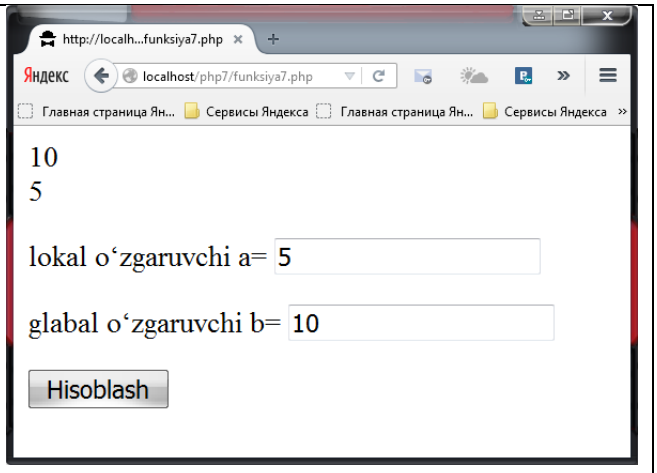
Lokal o‘zgaruvchini global qilish mumkin, agar uning nomi oldidan **global** kalit so‘zi ko‘rsatilsa. Agar tashqi o‘zgaruvchi **global** sifatida e’lon qilingan bo‘lsa, unga ixtiyoriy funksiyadan murojaat qilish mumkin:

```
<?php
function get_sum()
{
global $a;
$a = $_POST['a']; // lokal
o‘zgaruvchi
echo $a;
}
  $b = $_POST['b']; // global
o‘zgaruvchi
  get_sum(); // lokal o‘zgaruvchi
  echo("<br>$b"); // global
o‘zgaruvchi
?>
<form action="funksiya6.php"
method="post">
<p>lokal o‘zgaruvchi a= <input
name="a" type="text"></p>
<p>global o‘zgaruvchi b= <input
name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Global o‘zgaruvchilarga **$GLOBALS** assotsiativ massiv orqali murojaat qilish mumkin:

```
<?php
function get_sum()
{
global $a;
$a = $_POST['a']; // lokal o‘zgaruvchi
echo $a;
}
  $b = $_POST['b']; // global o‘zgaruvchi
  get_sum(); // lokal o‘zgaruvchi
  echo("<br>$b"); // global o‘zgaruvchi
?>
<form action="funksiya6.php"
method="post">
<p>lokal o‘zgaruvchi a= <input
```

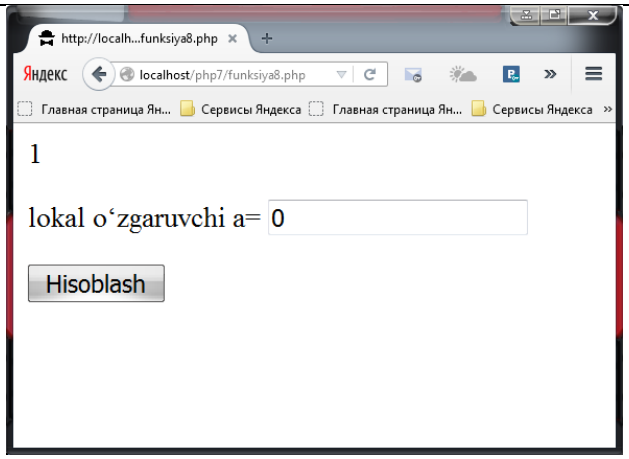


name="a" type="text"> global o‘zgaruvchi b= <input name="b" type="text"> <input type="submit" value="Hisoblash"> </form>	

$GLOBALS massiviga ixtiyoriy funksiya ko‘rinish sohasida murojaat qilish mumkin va u dasturda foydalaniluvchi barcha global o‘zgaruvchilarni o‘z ichiga oladi.

O‘zgaruvchi xayot davri deb u mavjud bo‘lgan dastur bajarilish intervali tushuniladi. Lokal o‘zgaruvchilar ko‘rinish sohasi funksiya bo‘lgani uchun, ularning xayot davri ular ta’riflangan funksiya bajarilish vaqti bilan belgilanadi. Bu shuni bildiradiki, har xil funksiyalarda bir - biridan mustaqil ravishda bir xil nomli o‘zgaruvchilar ishlatilishi mumkin. Lokal o‘zgaruvchi har gal funksiya chaqirilganda yangidan initsializatsiya qilinadi, shuning uchun quyidagi misolda keltirilgan sanovchi funksiyaning qaytaruvchi qiymati har gal 1 ga teng bo‘ladi:

```
function counter()
{
  $counter = 0;
  return ++$counter;
}
```

<?php
 	
function a()
{
$a = $_POST['a'];
return ++$a;
}
echo a();
?>
<form action="funksiya8.php"
method="post">
 lokal o‘zgaruvchi a= <input
name="a" type="text">
 <input type="submit"
value="Hisoblash">
</form>
	

Lokal o‘zgaruvchi funksiya yangidan chaqirilganda oldingi qiymatini saqlab qolishi uchun uni **static** kalit so‘zi yordamida statik deb e’lon qilish mumkin:

```
function counter()
{
  static $counter = 0;
```

```
    return ++$counter;
  }
```

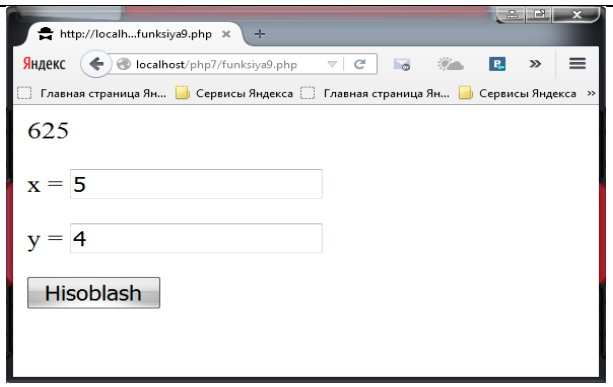
Statik o‘zgaruvchilarning xayot davri stsenariy bajarilish vaqtiga teng. Ya’ni agar foydalanuvchi sahifani qayta yuklasa va natijada stsenariy qaytadan bajarilsa, o‘zgaruvchi **$counter** bu holda yangidan initsializatsiya qilinadi.

5.3. Rekursiya tushunchasi

Rekursiya deb shunday konstruktsiyaga aytiladiki, funksiya o‘zini - o‘zi chaqiradi. To‘g‘ri va nisbiy rekursiya bir – biridan farqlanadi. Funksiya to‘g‘ri rekursiv deyiladi, agar tanasida o‘ziga murojaat mavjud bo‘lsa. Funksiya boshqa funksiyani chaqirsa va bu funksiya o‘z navbatida birinchi funksiyani chaqirsa, bunday funksiya nisbiy rekursiv funsiya deyiladi.

Rekursiyani qo‘llashga klassik misollar sifatida darajaga oshirish va son faktorialini hisoblash keltirish mumkin. Bu misollar rekursiyani tushuntirish qulay bo‘lgani uchun klassik hisoblanadi, lekin ular iteratsion usullarga nisbatan afzallikka ega emas.

```
<?php
$x = $_POST['x'];
$y = $_POST['y'];
 function degree($x,$y)
 {
  if($y)
  {
   return $x*degree($x,$y-1);
  }
  return 1;
 }
 echo(degree($x,$y)); // chiqaradi 16
?>
<form action="funksiya9.php"
method="post">
<p> x = <input name="x"
type="text"></p>
<p> y = <input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



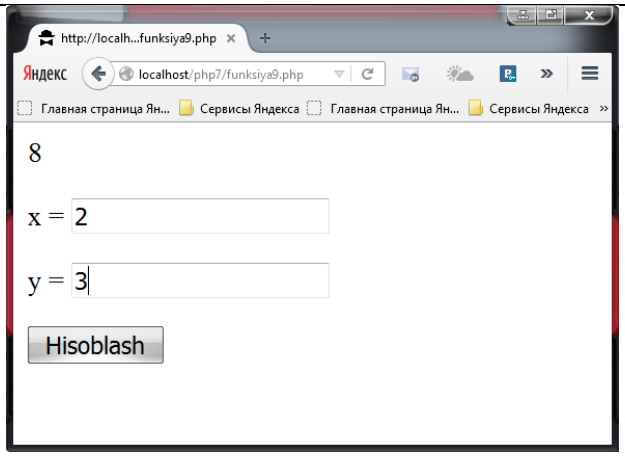
Bu misol quyidagi qoidaga asoslangan $\mathbf{x^y}$ ekvivalent $\mathbf{x*x^{(y-1)}}$. Bu kodda $\mathbf{2^4}$ hisoblash masalasi, $\mathbf{2*2^3}$ hisoblashga keltiriladi. So‘ng $\mathbf{2*2^3}$ ni hisoblash $\mathbf{2*2^2}$ ni hisoblashga keltiriladi, toki ko‘rsatkich nolga teng bo‘lmaguncha.

Bu misolning iteratsion varianti quyidagi ko‘rinishga ega:

```
<?
```

```php
function degree($x,$y)
{
  for($result = 1; $y > 0; --$y)
  {
    $result *= $x;
  }
  return $result;
}
echo(degree(2,4)); // chiqaradi 16
?>
```

```php
<?php
$x = $_POST['x'];
$y = $_POST['y'];
 function degree(int $x, int $y)
 {
  for($result = 1; $y > 0; --$y)
  {
    $result *= $x;
  }
  return $result;
 }
 echo(degree($x,$y)); // chiqaradi 16
?>
<form action="funksiya9.php"
method="post">
<p> x = <input name="x"
type="text"></p>
<p> y = <input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Bu kodni tushunish osonligidan tashqari, u samaraliroqdir, chunki siklni bajarish funksiyani chaqirishga nisbatan tez bajariladi.

```php
<?
 function fact($x)
 {
  if ($x < 0) return 0;
  if ($x == 0) return 1;
  return $x * fact($x - 1);
 }
 echo (fact(3)); // chiqaradi 6
?>
```

Manfiy argument uchun funksiya nol qiymat qaytaradi, chunki ta’rif bo‘yicha manfiy son faktoriali mavjud emas. Parametr nolga teng bo‘lsa funksiya 1 qiymat qaytaradi, chunki 0! = 1. Boshqa xollarda xuddi shu funksiya argumenti 1 ga kamaygan xolda chaqiriladi, so‘ngra natija parametr joriy qiymatiga ko‘paytiriladi. Ya’ni quyidagi ko‘paytma hisoblanadi:

k * (k - 1) * (k - 2) * ... * 3 * 2 * 1 * 1

Rekursiv chaqirishlar ketma-ketligi faqat **fact(0)** chaqirishda uziladi. Bu chaqirish ko‘paytmadagi oxirgi 1 qiymatga keltiradi, chunki funksiyani chaqiruvchi oxirgi ifoda ko‘rinishi 1 * **fact**(1 - 1).

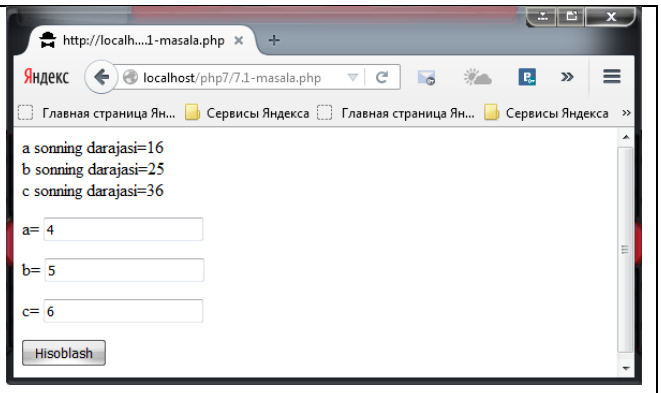
Iteratsion ravishda faktorialni quyidagicha hisoblash mumkin:

```
<?
 function fact($x)
 {
  for ($result = 1; $x > 1; --$x)
  {
   $result *= $x;
  }
  return $result;
 }
 echo (fact(6)); // chiqaradi 720
?>
```

5.4. FUNKSIYA TADBIQI

7.1-masala. Ihtiyoriy sonning darajasini hisoblovchi Daraja2 nomli funksiya hosil qiling. Daraja2 funksiyasi orqali a, b, c sonlarining darajasini hisoblovchi dastur tuzing.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("a sonning darajasi=".Daraja2($a));
echo("<br>b sonning
darajasi=".Daraja2($b));
echo("<br>c sonning
darajasi=".Daraja2($c));
Function Daraja2(int $a)
{
$a = $a*$a;
return $a;
}
?>
<form action="7.1-masala.php"
method="post">
```

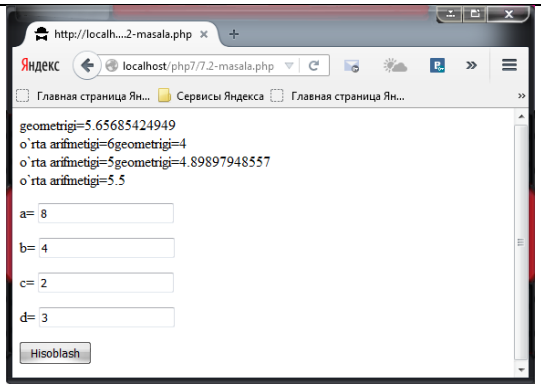


```
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p>c= <input name="c"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

7.2-masala. Ikkita sonning o‘rta arifmetigi va geometrigini hisoblovchi o‘rta_arifmetigi_geometrigi nomli funksiya hosil qiling. o‘rta_arifmetigi_geometrigi funksiyasi orqali a, b, c, d sonlaridan (a, b), (a, c), (a, d) juftliklarining o‘rta arifmetigi va geometrigini hisoblovchi dastur tuzing.

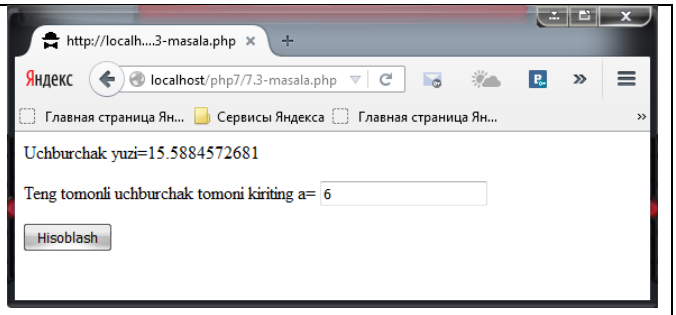
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
$d = $_POST['d'];
o‘rta_arifmetigi_geometrigi($a,$b);
o‘rta_arifmetigi_geometrigi($a,$c);
o‘rta_arifmetigi_geometrigi($a,$d);
Function o‘rta_arifmetigi_geometrigi($a,$b)
{
$p = sqrt($a*$b);
$s = ($a+$b)/2;
echo "geometrigi=$p";
echo "<br>o`rta arifmetigi=$s";

}
?>
<form action="7.2-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p>d= <input name="d" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



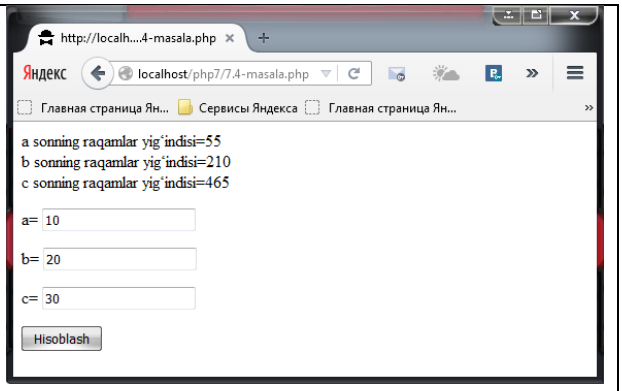
7.3-masala. Teng tomonli uchburchakning yuzasini hisoblovchi uchburchak_yuzi nomli funksiya hosil qiling. Uchburchak_yuzi funksiyasi orqali uchta teng tomonli uchburchakning yuzini hisoblovchi dastur tuzing.

```
<?php
$a = $_POST['a'];
echo("Uchburchak
yuzi=".Uchburchak_yuzi($a));
Function Uchburchak_yuzi(int $a)
{
$s=$a*$a*sqrt(3)/4;
return $s;
}
?>
<form action="7.3-masala.php"
method="post">
<p>Teng tomonli uchburchak tomoni
kiriting a= <input name="a"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.4-masala. Natural sonning raqamlar yig‘indisini hisoblovchi raqamlar_yig‘indisi nomli funksiya hosil qiling. Bu funksiya orqali a, b, c sonlarining yig‘indisini hisoblovchi dastur tuzing.

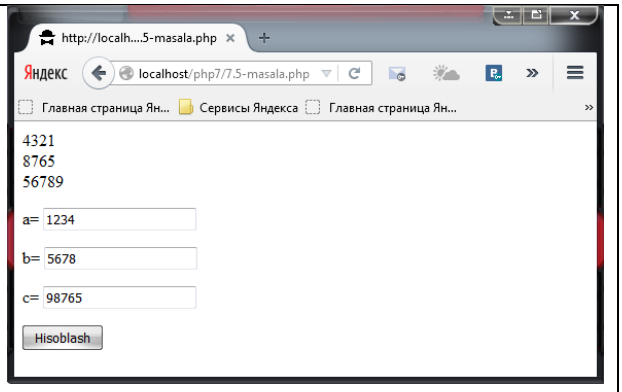
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("a sonning raqamlar
yig‘indisi=".raqamlar_yig‘indisi($a));
echo("<br>b sonning raqamlar
yig‘indisi=".raqamlar_yig‘indisi($b));
echo("<br>c sonning raqamlar
yig‘indisi=".raqamlar_yig‘indisi($c));
Function raqamlar_yig‘indisi(int $n)
{
$s=0;
for ($i =1; $i <=$n; $i++)
$s=$s+$i;
return $s;
}
?>
<form action="7.4-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
```



```
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

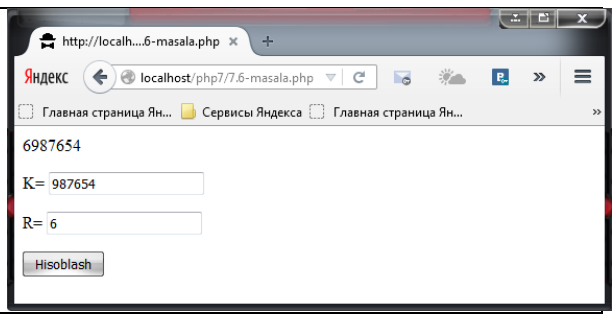
7.5-masala. Butun musbat sonning raqamlarini teskari tartibda chiqaruvchi teskari_tartibda nomli funksiya hosil qiling. Bu funksiya orqali a, b, c sonlarining raqamlarini teskari tartibda chiqaruvchi dastur tuzing.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("<br>".teskari_tartibda($a));
echo("<br>".teskari_tartibda($b));
echo(teskari_tartibda($c));
Function teskari_tartibda(int $n)
{
while($n>0)
{
$i=$n%10;
$n=floor($n/10);
echo "$i";
}
}
?>
<form action="7.5-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.6-masala. Kiritilgan K butun musbat sonining chap tarafiga (boshiga) R raqamini (1<=R<=9) qo‘shuvchi RQo‘shish nomli funksiya hosil qiling.

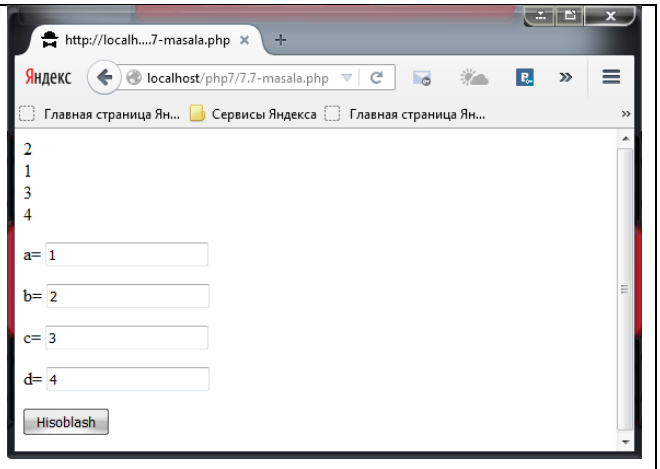
```
<?php
$k = $_POST['K'];
$r = $_POST['R'];
if ((1<=$r)and($r<=9))
{
Rqoshish(int $k, int $r);
}
```



```
else
{
echo "R ni 1 va 9 oraliqda kiriting!";
}
Function Rqoshish($son,$raqam)
{
$Raqamlar_soni=0;
$x=$son;
while($x>0)
{
$x=floor($x/10);
$Raqamlar_soni++;
}
$son=$son+$raqam*pow(10,$Raqamlar_son
i);
echo $son;
}
?>
<form action="7.6-masala.php"
method="post">
<p>K= <input name="K" type="text"></p>
<p>R= <input name="R" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

7.7-masala. Ikkita sonning qiymatini almashtiruvchi almashtirish nomli funksiya hosil qiling. Almashtirish funksiyasi orqali A. B, C, D sonlaridan (A, B), (D, C) juftliklarining qiymatlarini almashtiruvchi dastur tuzing.

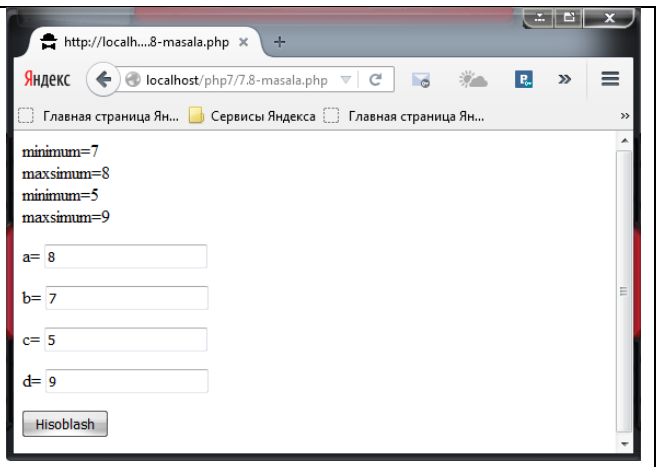
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
$d = $_POST['d'];
echo("<br>".almashtirish($a,$b));
echo("<br>".almashtirish($d,$c));
Function almashtirish(int $x, int $k)
{
$y=$x;
$x=$k;
$k=$y;
echo"$x<br>";
echo"$k";
}
```



```
?>
<form action="7.7-masala.php"
method="post">
<p>a= <input name="a"
type="text"></p>
<p>b= <input name="b"
type="text"></p>
<p>c= <input name="c"
type="text"></p>
<p>d= <input name="d"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

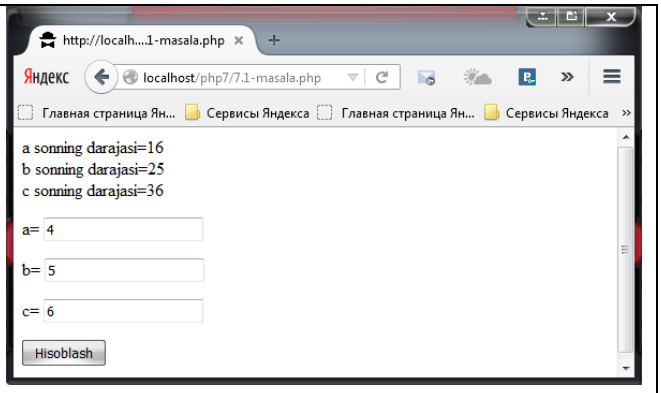
7.8-masala. X va Y sonlaridan kichigini X ga va kattasini Y ga yozuvchi Minmax(X,Y) funksiyasini hosil qiling. Minmax funksiyasini 4 marta chaqirish orqali a. b, c, d butun sonlaridan kattasini va kichigini aniqlovchi dastur tuzing.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
$d = $_POST['d'];
echo("<br>".Minmax($a,$b));
echo("<br>".Minmax($c,$d));
Function Minmax(int $x, int $y)
{
$min=min($x,$y);
$max=max($x,$y);
echo"minimum=$min<br>";
echo"maxsimum=$max";
}
?>
<form action="7.8-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p>d=<input name="d" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



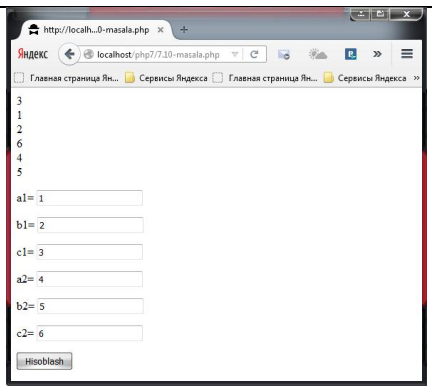
7.9-masala. a, b, c sonlarini o‘sish tartibida joylashtiruvchi O‘sish_tartibi(a, b, c) funksiyasini hosil qiling. Ya‘ni a, в, c sonlari qiymatlarini shunday almashtiringki, natijada a ning qiymati eng kichik va c ning qiymati eng katta bo‘lsin. Bu funksiya orqali (a1, b1, c1) va (a2, b2, c2) sonlarini tartiblang.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("a sonning darajasi=".Daraja2($a));
echo("<br>b sonning
darajasi=".Daraja2($b));
echo("<br>c sonning
darajasi=".Daraja2($c));
Function Daraja2(int $a)
{
$a = $a*$a;
return $a;
}
?>
<form action="7.1-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.10-masala. O‘ngga siklik siljishni amalga oshiruvchi O‘nga_siljish(A, B, C) funksiyasini hosil qiling. Ya‘ni A ning qiymati B ga, B ning qiymati C ga, C ning qiymati A ga o‘tib qolsin. Bu funksiya orqali (A1, B1, C1) va (A2. B2, C2) sonlarini siljiting.

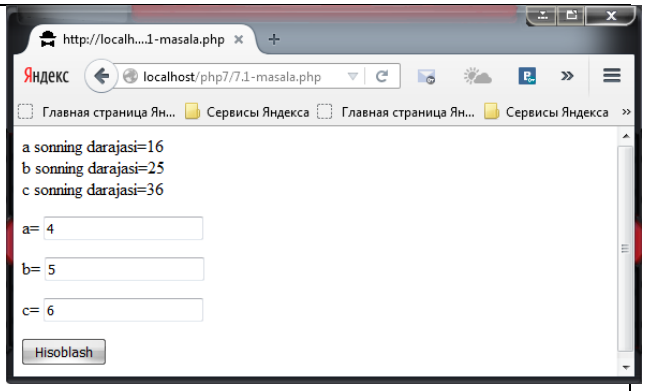
```
<?php
$a1 = $_POST['a1'];
$b1 = $_POST['b1'];
$c1 = $_POST['c1'];
$a2 = $_POST['a2'];
$b2 = $_POST['b2'];
$c2 = $_POST['c2'];
O‘nga_siljish($a1,$b1,$c1);
O‘nga_siljish($a2,$b2,$c2);
Function O‘nga_siljish(int $a,int $b,int $c)
{
```



```
$k=$c;
$c=$b;
$b=$a;
$a=$k;
echo "$a<br>$b<br>$c<br>";
}
?>
<form action="7.10-masala.php"
method="post">
<p>a1= <input name="a1" type="text"></p>
<p>b1= <input name="b1" type="text"></p>
<p>c1= <input name="c1" type="text"></p>
<p>a2= <input name="a2" type="text"></p>
<p>b2= <input name="b2" type="text"></p>
<p>c2= <input name="c2" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

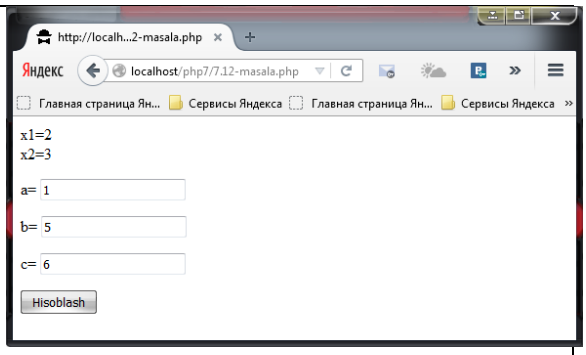
7.11-masala. Haqiqiy sonning ishorasini aniqlovchi ishora nomli funksiya hosil qiling. Funksiya argumenti noldan kichik bo‘lsa -1; noldan katta bo‘lsa 1; nolga teng bo‘lsa 0 qiymat qaytarsin. Haqiqiy a va b sonlari uchun ishora(a) + ishora(b) ifodasi hisoblansin.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("a sonning darajasi=".Daraja2($a));
echo("b sonning darajasi=".Daraja2($b));
echo("c sonning darajasi=".Daraja2($c));
Function Daraja2(int $a)
{
$a = $a*$a;
return $a;
}
?>
<form action="7.1-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



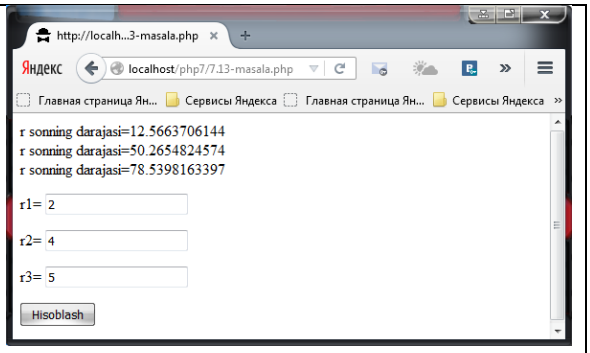
7.12-masala. Kvadrat tenglamaning ildizlari sonini aniqlovchi funksiya hosil qiling. a * x^2 + b * x + c =0 ko‘rinishidagi tenglama kvadrat tenglama deyiladi. (a noldan farqli son)

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
Kvadrat_tenglama($a,$b,$c);
Function Kvadrat_tenglama(int $a, int $b,int
$c)
{
if ($a<>0)
{
$d=pow($b,2)-4*$a*$c;
if ($d>0)
{
$x1=($b-sqrt($d))/2*$a;
$x2=($b+sqrt($d))/2*$a;
echo "x1=$x1<br>x2=$x2";
}
elseif($d=0)
{
$x1=$b/2*$a;
echo "x1=$x1";
}
else
echo "yechim mavjud emas dis 0 dan kichik";
}
else echo "a sonni 0 dan farqli son kiriting!";
}
?>
<form action="7.12-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



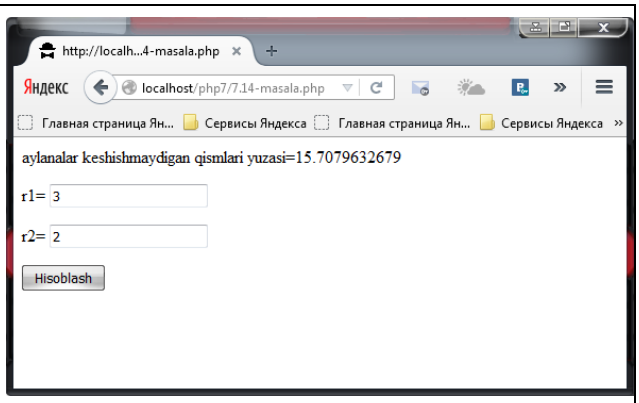
7.13-masala. Doiraning yuzini hisoblovchi funksiya hosil qiling. Bu funksiya yordamida 3 ta doira yuzini hisoblang. Doiraning yuzi $S = \pi R^2$ formula orqali hisoblanadi. $\pi = 3.1415$ ni o‘zgarmas deb qabul qiling.

```
<?php
$a = $_POST['r1'];
$b = $_POST['r2'];
$c = $_POST['r3'];
echo("r sonning
darajasi=".Doiraning_yuzini($a));
echo("<br>r sonning
darajasi=".Doiraning_yuzini($b));
echo("<br>r sonning
darajasi=".Doiraning_yuzini($c));
Function Doiraning_yuzini(int $r)
{
$S = pi()*pow($r,2);
return $S;
}
?>
<form action="7.13-masala.php"
method="post">
<p>r1= <input name="r1" type="text"></p>
<p>r2= <input name="r2" type="text"></p>
<p>r3= <input name="r3" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.14-masala. Markazi bir nuqtada bo‘lgan, R1 va R2 radiusga ega 2 ta aylananing ustma - ust tushmaydigan (kesishmaydigan) qismining yuzasini topuvchi RingS nomli funksiya hosil qiling. Doiraning yuzini hisoblash formulasidan foydalaning. $S = \pi R^2$, $\pi = 3.1415$ ni o‘zgarmas deb qabul qiling.

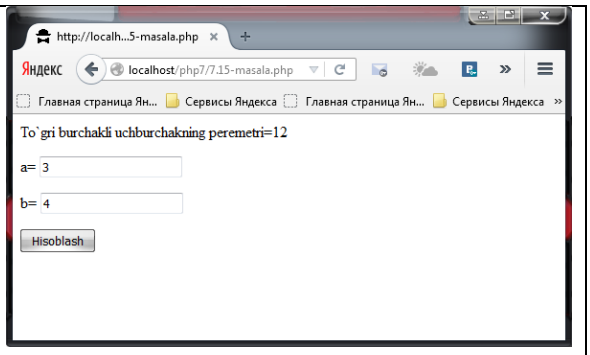
```
<?php
$a = $_POST['r1'];
$b = $_POST['r2'];
echo("aylanalar keshishmaydigan qismlari
yuzasi=".RingS($a,$b));
Function RingS(int $a, int $b)
{
$S =abs(pi()*pow($a,2)-pi()*pow($b,2));
return $S;
}
?>
<form action="7.14-masala.php"
method="post">
<p>r1= <input name="r1"
```



```
type="text"></p>
<p>r2= <input name="r2"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

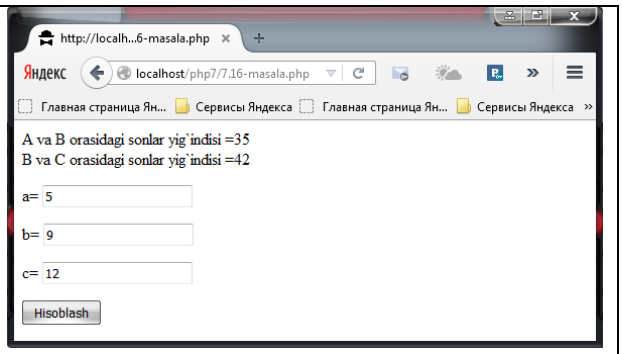
7.15-masala. To‘g‘ri burchakli uchburchakning katetlari a va b berilganda. uning perimetrini hisoblovchi TriangleP nomli funksiya hosil qiling.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
echo("To`gri burchakli uchburchakning
peremetri=".TriangleP($a,$b));
Function TriangleP(int $a, int $b)
{
$p =$a+$b+sqrt(pow($a,2)+pow($b,2));
return $p;
}
?>
<form action="7.15-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.16-masala. A va B sonlari orasidagi sonlar yig‘indisini hisoblovchi SumRange(A,B) nomli funksiya hosil qiling. Agar A>B bo‘lsa. funksiya 0 qiymat qaytaradi. Bu funksiya orqali A dan B gacha va B dan C gacha bo‘lgan sonlar yig‘inddisini hisoblang, A, B, C butun sonlar.

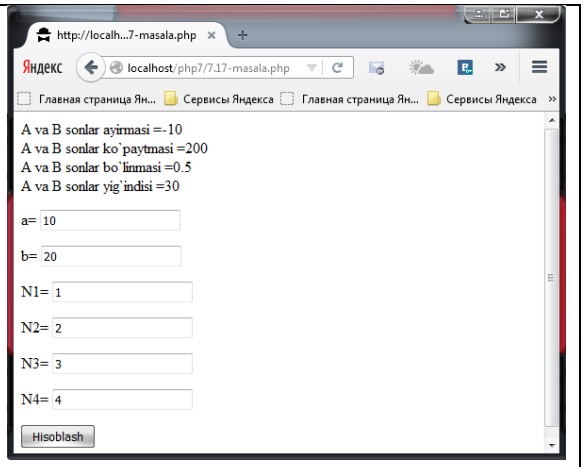
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$c = $_POST['c'];
echo("A va B orasidagi sonlar yig‘indisi
=".SumRange($a,$b)."<br>");
echo("B va C orasidagi sonlar yig‘indisi
=".SumRange($b,$c));
Function SumRange(int $x,int $y)
{
$S=0;
```



```
while ($x<=$y)
{
$S+=$x;
$x++;
}
return $S;
}
?>
<form action="7.16-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>c= <input name="c" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

7.17-masala. Arifmetik amallarni bajaruvchi Calc(A, B, Op) funksiyasini hosil qiling. A va B haqiqiy sonlar. Op o‘zgaruchisi orqali bajariladigan arifmetik amal aniqlanadi. 1 - ayirish, 2 - ko‘paytirish, 3 - bo‘lish, boshqalari qo‘shish. Shu funksiya orqali A va B sonlari uchun N1, N2, N3, N4 amallari bajarilsin. (N1 - N4 butun sonlar)

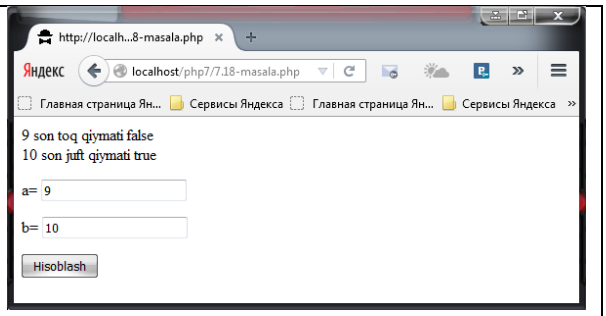
```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
$n1 = $_POST['n1'];
$n2 = $_POST['n2'];
$n3 = $_POST['n3'];
$n4 = $_POST['n4'];
echo("A va B sonlar ayirmasi
=".Calc($a,$b,$n1)."<br>");
echo("A va B sonlar ko‘paytmasi
=".Calc($a,$b,$n2)."<br>");
echo("A va B sonlar bo‘linmasi
=".Calc($a,$b,$n3)."<br>");
echo("A va B sonlar yig‘indisi
=".Calc($a,$b,$n4));
Function Calc(int $a,int $b,int $op)
{
switch($op)
{
case 1: $S=$a-$b; break;
case 2: $S=$a*$b; break;
case 3: $S=$a/$b; break;
```



```
case 4: $S=$a+$b; break;
}
return $S;
}
?>
<form action="7.17-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p>N1= <input name="n1" type="text"></p>
<p>N2= <input name="n2" type="text"></p>
<p>N3= <input name="n3" type="text"></p>
<p>N4= <input name="n4" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

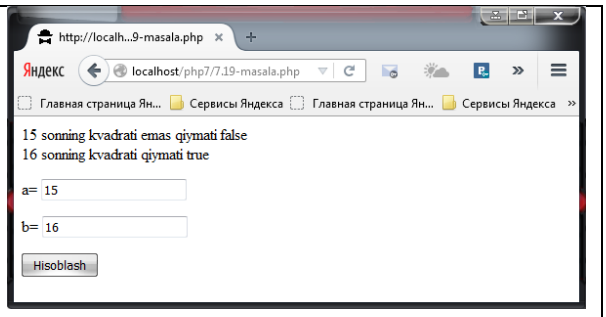
7.18-masala. Butun sonning juft yoki toqligini aniqlovchi Even(K) funksiyasini hosil qiling. Funksiya K juft son bo‘lsa - true, aks holda false qiymat qaytarsin. Bu funksiya orqali 2 ta sonning juft yoki toqligi aniqlansin.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
if (Even($a))
echo "$a son juft qiymati true<br>";
else
echo "$a son toq qiymati false<br>";
if (Even($b))
echo "$b son juft qiymati true";
else
echo "$b son toq qiymati false";
Function Even(int $k)
{
return ($k%2==0);
}
?>
<form action="7.18-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



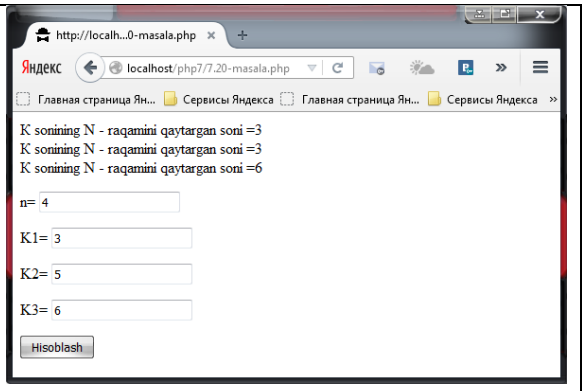
7.19-masala. IsSquare(K) mantiqiy funksiyasini hosil qiling, (K>0). Agar K biror butun sonning kvadrati bo‘lsa - true, aks holda false qiymat qaytarilsin. Shu funksiya orqali 2 ta sonni tekshiring.

```
<?php
$a = $_POST['a'];
$b = $_POST['b'];
if (IsSquare($a))
echo "$a sonning kvadrati qiymati
true<br>";
else
echo "$a sonning kvadrati emas qiymati
false<br>";
if (IsSquare($b))
echo "$b sonning kvadrati qiymati true";
else
echo "$b sonning kvadrati emas qiymati
false";
Function IsSquare(int $k)
{
$ildiz=sqrt($k);
if ($ildiz*$ildiz == $k)
return true;
else
return false;
}
?>
<form action="7.19-masala.php"
method="post">
<p>a= <input name="a" type="text"></p>
<p>b= <input name="b" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



7.20-masala. Butun qiymat qaytaruvchi DigitN(K,N) funksiyasini hosil qiling, (K>0). Funksiya K sonining N - raqamini qaytarsin. Agar K soni raqamlari N dan kichk bo‘lsa. minus bir qaytarilsin. Shu funksiya orqali K1, K2. K3 sonlarining N - raqami aniqlansin.

```
<?php
$n = $_POST['n'];
$k1 = $_POST['k1'];
$k2 = $_POST['k2'];
$k3 = $_POST['k3'];
echo("K sonining N - raqamini qaytargan soni
=".DigitN($k1,$n)."<br>");
echo("K sonining N - raqamini qaytargan soni
=".DigitN($k1,$n)."<br>");
echo("K sonining N - raqamini qaytargan soni
=".DigitN($k3,$n));
Function DigitCount(int $K)
{
$soni=0;
while($K>0)
{
$soni++;
$K/=10;
}
return $soni;
}
Function DigitN($K,$N)
{
$soni=DigitCount($K);
if ($soni<$N)
return -1;
if ($i==$N)
return ($K%10);
else
$K/=10;
}
?>
<form action="7.20-masala.php"
method="post">
<p>n= <input name="a" type="text"></p>
<p>K1= <input name="k1" type="text"></p>
<p>K2= <input name="k2" type="text"></p>
<p>K3= <input name="k3" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



5.5. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLARI

7.1-masala. Ihtiyoriy sonning 3 - darajasini hisoblovchi PowerA3 nomli funksiya hosil qiling. PowerA3 funksiyasi orqali A, B, C haqiqiy sonlarining va D, E butun sonlarining 3 - darajasini hisoblovchi dasturini tuzing.
7.2-masala. Ihtiyoriy sonning 2, 3, 4 - darajasini hisoblovchi PowerA234 nomli funksiya hosil qiling. PowerA234 funksiyasi orqali A, B, C haqiqiy sonlarining 2, 3, 4 - darajasini hisoblovchi dasturini tuzing. Funksiya prototipi quyidagicha bo‘lishi mumkin: PowerA234(float . float *, float *, float *);
7.3-masala. 2 ta sonning o‘rta arifmetigi va goemetrigini hisoblovchi MEAN nomli funksiya hosil qiling. MEAN funksiyasi orqali A, B, C, D sonlaridan (A. B), (A. C), (A. D) juftliklarining o'rta arifmetigi va geometrigini hisoblovchi dasturni tuzing.
Funksiya prototipi quyidagicha bo‘lishi mumkin: MEAN(float, float . float *, float *);
7.4-masala. Teng tomonli 3 burchakning yuzasi va perimetrini hisoblovchi Triangle nomli funksiya hosil qiling. Triangle funksiyasi orqali 3 ta teng tomonli uchburchakning perimetri va yuzini hisoblovchi dasturni tuzing. Triangle(float, float *, float *);
7.5-masala. To‘g‘ri to‘rtburchakning yuzini va perimetrini uning qarama - qarshi uchlari koordinatasi orqali hisoblovchi RectPS nomli funksiya hosil qiling. (x1,y1,x2,y2) to‘g‘ri to‘rtburchakning qarama - qarshi uchlari. RectPS funksiyasi orqali 2 ta to‘rtburchak yuzi va perimetrini hisoblang. To‘rtburchak tomonlari koordinatalar o‘qiga parallel. Funksiya prototipi quyidagicha bo‘lishi mumkin: RectPS(int, int, int *, int *);
7.6-masala. Natural sonning raqamlari soni va raqamlari yig‘indisini hisoblovchi DigitCountSum nomli funksiya hosil qiling. Bu funksiya orqali a, b, c sonlarining raqamlari soni va yig‘indisini hisoblovchi dasturni tuzing. DigitCountSum **(**int, int ***,** int ***);**
7.7-masala. Butun musbat sonining raqamlarini teskari tartibda chiqaruvchi InvertDigit nomli funksiya hosil qiling. Bu funksiya orqali a, b, c sonlarining raqamlarini teskari tartibda chiqaruvchi dasturni tuzing. Funksiya prototipi quyidagicha bo‘lishi mumkin: InvertDigit **(int**);
7.8-masala. Kiritilgan K butun musbat sonining o‘ng tarafiga (oxiriga) R raqamini (1<=R<=9) qo‘shuvchi AddRightDigit nomli funksiya hosil qiling. Funksiya prototipi quyidagicha bo‘lishi mumkin: AddRightDigit **(int** son, **int** raqam);
7.9-masala. Kiritilgan K butun musbat sonining chap tarafiga (boshiga) R raqamini (1<=R<=9) qo‘shuvchi AddLeftDigit nomli funksiya hosil qiling. Funksiya prototipi quyidagicha bo‘lishi mumkin: AddLeftDigit **(int** *son, **int** raqam);
7.10-masala. Ikkita sonning qiymatini almashtiruvchi Swap nomli funksiya hosil qiling. Swap funksiyasi orqali A, B, C, D sonlaridan (A, B), (D, C) juftliklarining qiymatlarini almashtiruvchi dasturini tuzing. Funksiya prototipi quyidagicha bo‘lishi mumkin: Swap **(int *, int *);**
7.11-masala. X va Y sonlaridan kichigini X ga va kattasini Y ga yozuvchi Minmax(X, Y) funksiyasini hosil qiling. Minmax funksiyagini 4 marta chaqarish orqali a. b, c, d butun sonlaridan kattasini va kichigini aniqlovchi dasturni tuzing.

7.12-masala. A. B. C sonlarini o‘sish tartibida joylashtiruvchi Sortlnc3(A, B, C) funksiyasini hosil qiling. Ya’ni A. B. C sonlari qiymatlarini shunday almashtiringki, natijada A ning qiymati eng kichik va C ning qiymati eng katta bo‘lsin. Bu funksiya orqali (A1, B1, C1) va (A2, B2, C2) sonlarini tartiblang.

7.13-masala. A, B, C sonlarini kamayish tartibida joylashtiruvchi SortDec3(A, B, C) funksiyasini hosil qiling. Ya’ni A. B, C sonlari qiymatlarini shunday almashtiringki, natijada A ning qiymati eng katta va C ning qiymati eng kichik bo‘lsin. Bu funksiya orqali (A1, B1, C1) va (A2, B2, C2) sonlarini tartiblang.

7.14-masala. O‘ngga siklik siljishni amalga oshiruvchi ShiftRight3(A. B. C) funksiyasini hosil qiling. Ya’ni A ning qiymati B ga, B ning qiymati C ga, C ning qiymati A ga o‘tib qolsin. Bu funksiya orqali (A1, B1, C1) va (A2. B2, C2) sonlarini siljiting.

7.15-masala. Chapga siklik siljishni amalga oshiruvchi ShiftLeft3(A, B, C) funksiyasini hosil qiling. Ya’ni C ning qiymati B ga, B ning qiymati A ga, A ning qiymati C ga o‘tib qolsin. Bu funksiya orqali (A1, B1, C1) va (A2, B2, C2) sonlarini siljiting.

7.16-masala. Haqiqiy sonning ishorasini aniqlovchi ishora nomli funksiya hosil qiling. Funksiya argumenti noldan kichik bo'lsa -1; noldan katta bo‘lsa 1; nolga teng bo‘lsa 0 qiymat qaytarsin. Haqiqiy a va b sonlari uchun ishora(a)+ishora(b) ifodasi hisoblansin.

7.17-masala. Kvadrat tenglamaning ildizlar sonini aniqlovchi funksiya hosil qiling. $a * x^2 + b * x + c = 0$ ko‘rinishidagi tenglama kvadrat tenglama deyiladi. (a noldan farqli son) dasturini tuzing.

7.18-masala. Doiraning yuzini hisoblovchi funksiya hosil qiling. Bu funksiya yordamida 3 ta doira yuzini hisoblang. Doiraning yuzi $S = \pi * R^2$ orqali hisoblanadi, π=3.1415 ni o‘zgarmas deb qabul qiling.

7.19-masala. Markazi bir nuqtada bo‘lgan, R1 va R2 radiusga ega 2 ta aylananing ustma - ust tushmaydigan (kesishmaydigan) qismining yuzasini topuvchi RingS nomli funksiya hosil qiling. Doiraning yuzini hisoblash formulasidan foydalaning. $S = \pi * R^2$, π = 3.1415 ni o‘zgarmas deb qabul qiling.

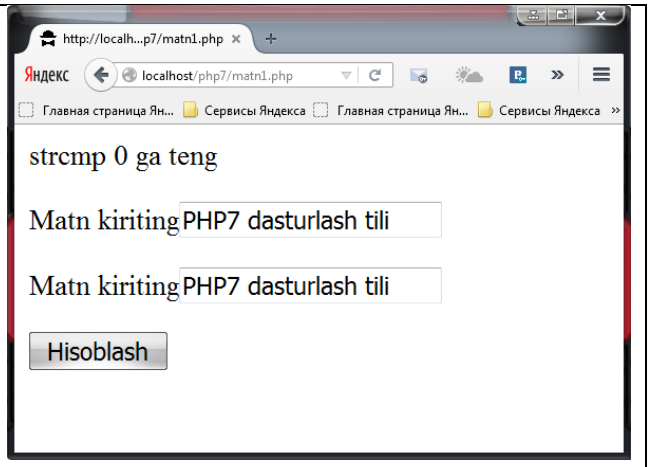
7.20-masala. To‘g‘ri burchakli uchburchakning katetlari A va B berilganda, uning perimetrini hisoblovchi TriangleP nomli funksiya hosil qiling.

VI. BOB. PHP DA MATNLAR BILAN ISHLASH

6.1 SIMVOLLARNI TAQQOSLASH

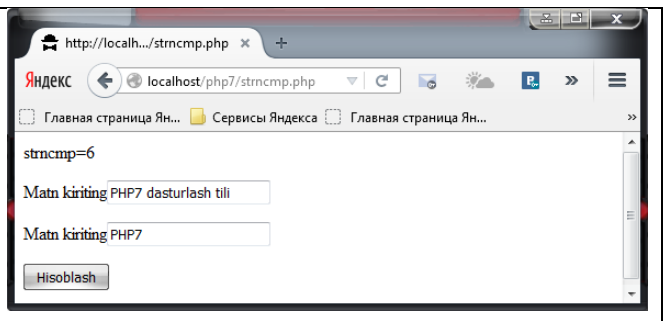
PHP7 tili bir qator tuzilgan funktsiyalarni o‘z ichiga oladi, ular ikkita matnli satrlarni taqqoslashga imkon beradi. Ushbu sodda strcmp() funktsiya taqqoslash uchun ikkita satrli argumentni qabul qiladi va olingan natijaga qarab uchta butun sonli qiymatlardan biriga qaytadi. Agar satrlar aniqligi aynan mos tushsa, strcmp() funktsiya 0 qiymatga qaytadi. Agar birinchi satr argumenti ikkinchisidan katta bo‘lsa, strcmp() funktsiya 1 qiymatga agar kichik bo‘lsa, u holda -1 qiymatga qaytadi. Qat’iy qilib aytganda, strcmp() funktsiya qaytadigan qiymat butun musbat son, nol yoki butun manfiy sondan iborat bo‘lishi mumkin, ko‘pincha, ushbu qiymatlar 1,0 yoki -1 dan iborat bo‘ladi. Strncmp() funktsiya ham xuddi shu tariqa ishlaydi, ammo, u uchinchi butun sonli argumentni qabul qiladi, hamda taqqoslash uchun satr boshidan nechta simvol olinayotganligini ko‘rsatishga imkon beradi. So‘ngra satrlarni taqqoslash uchun ushbu ko‘rsatmani qo‘shamiz:

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
 if (strcmp($matn1,$matn2)==0)
print "strcmp 0 ga teng";
?>
<form action="matn1.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Strcmp() va strncmp() funktsiyalar satrlardagi simvollar registrini (qayd etilishini) inobatga oladi, ya’ni, satrlarni taqqoslashda bosh harflar va kichik harflar o‘rnini aniqlaydi. strncmp – ikkilik formadagi berilganlar uchun xavfsiz bo‘lgan satrning dastlabki n ta simvolining registrni e’tiborga olmasdan taqqoslaydi.

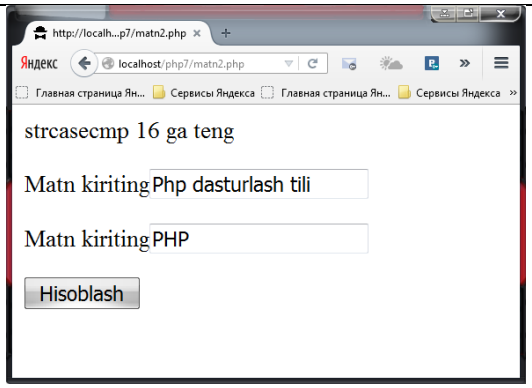
```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s1=strncmp($matn1,$matn2,10);
echo "strncmp=$s1";
?>
<form action="strncmp.php"
method="post">
```



```
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

Agar registrni hisobga olish zarurati bo‘lmasa, u holda alternativ (muqobil) funktsiyalar strcasecmp() va strncasecmp() dan foydalanish mumkin. Endi taqqoslanadigan simvollar registr (qaydi) ni inobatga olmaydigan ko‘rsatmani qo‘shamiz. strnatcasecmp – algoritmdan foydalangan holda registrni hisobga olmasdan satrlar taqqoslanadi.

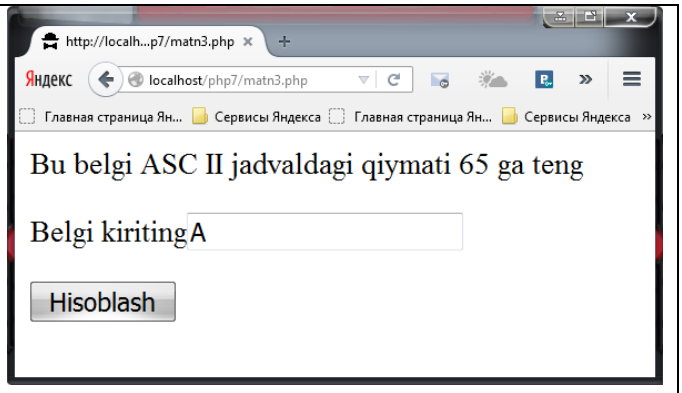
```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strcasecmp($matn1,$matn2);
 print "strcasecmp $s ga teng";
?>
<form action="matn2.php" method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Har bir simvol ASC II – standart kodiga ega. ASC II – ushbu qisqartma so‘z American Standard Code for Information Interchange (Ma’lumotlar almashinish bo‘yicha Amerika standarti) inglizcha so‘zining birinchi harflaridan olingan u simvollarni kodlashtirishning universal sxemasi bo‘lib, shu sohadagi standartni (andozani) belgilaydi. Ixtiyoriy simvolning ACS II – kodini aniqlash uchun simvolni ord() PHP – funktsiyaning argumenti sifatida beradi. Satr harflari “a” dan “z” gacha, 97-122 qiymatlari orasida, bosh harflar “A”-“Z” esa 65-90 gacha bo‘lgan qiymatlar orasida joylashgan. Har bir oraliqdagi birinchi qiymatlarni taqqoslab ko‘rish mumkinki, satr harf “a” (97), bosh harf “A” (65) ga qaraganda kattaroq kodga ega. Shu sababli, uni strcmp() funktsiyani argument ko‘rinishiga keltirsak, strcmp() funktsiya 1 ni qaytaradi, chunki birinchi argumentning qiymati ikkinchisinikidan katta. Boshqa tomondan, argument “A” (65) ni birinchi argument sifatida “a” (97) ni esa ikkinchi argument sifatida ko‘rsatsak u holda strcmp() funktsiya -1 ni qaytaradi, chunki birinchi argumentning qiymati ikkinchisinikidan kichik. Satrlarni taqqoslashda har bir simvol ketma – ketligidagi o‘rni bo‘yicha taqqoslanadi, bunda aynan bir simvolni saqlovchi satrlar, turli tartibda joylashgan bo‘lsa, ularning

xatoliklari teng bo‘lib qolmasligini kafolatlaydi. Masalan, “ABC” va “BAC” satrlarni taqqoslashda, birinchi satrning birinchi simvoli “A” (65), ikkinchi satrning birinchisimvoli “B” (66) ga qaraganda kichik bo‘ladi, shu sababli, strcmp() funktsiya -1 ni qaytaradi, chunki birinchi argument ikkinchisidan kichik.

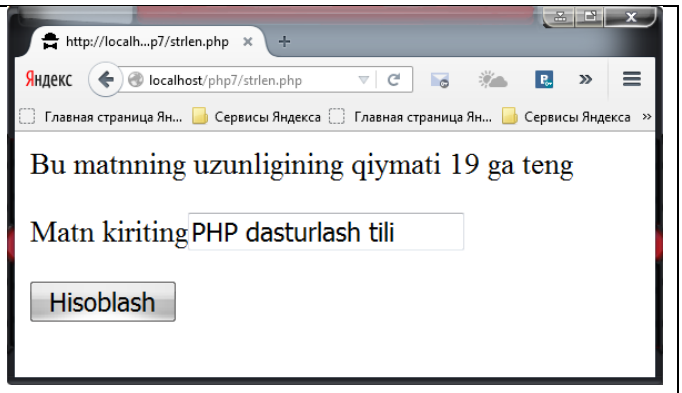
```
<?php
$belgi1 = $_POST['x'];
$s=ord($belgi1);
 print "Bu belgi ASC II jadvaldagi
qiymati $s ga teng";
?>
<form action="matn3.php"
method="post">
<p> Belgi kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Eslatib o‘tish lozimki, ASC II – kodning umumiy hajmi uchun simvollarning joylashishi tartibining ahamiyati yo‘q: turli tartibli so‘zlar (yoki harflar) bilan yozilgan ikkita satr kod hajmi bo‘yicha ekvivalent bo‘ladi, ammo, bir – biriga mos tushmasligi mumkin.

Satr uzunligini esa strlen() PHP – funktsiyaning argumenti sifatida ko‘rsatish orqali aniqlash mumkin.

```
<?php
$belgi1 = $_POST['x'];
$s=strlen($belgi1);
 print "Bu matnning uzunligining
qiymati $s ga teng";
?>
<form action="strlen.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

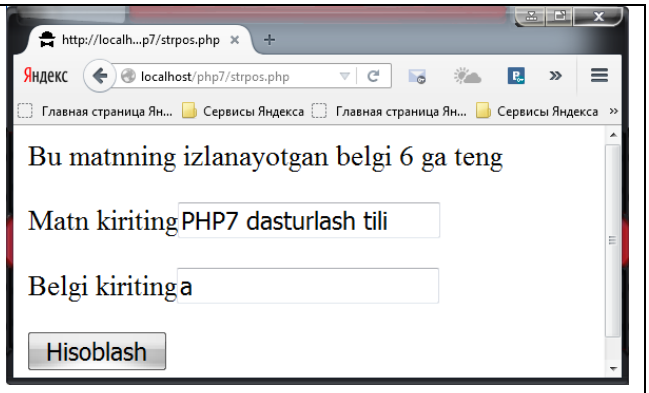


6.2 MATNNI IZLASH

PHP tilida bir nechta tuzilgan funktsiyalar mavjud bo‘lib, ular satrlar ichidagi ma’lum qismiy satrni yoki alohida simvollarni izlashga imkon beradi. Ushbu sodda funktsiya strpos() ikkita argumentni qabul qiladi, ular o‘z navbatiga izlanishi lozim bo‘lgan satrni va izlanayotgan qism satrni ko‘rsatadi. Izlash satr boshidan to mos

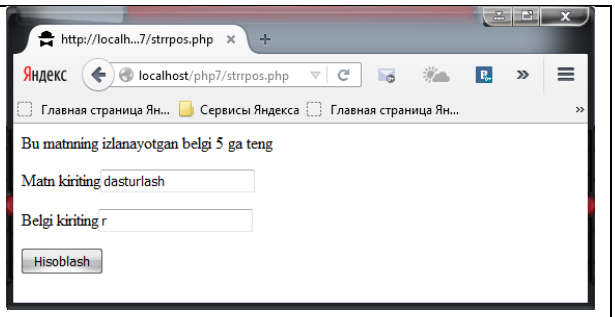
tushgan simvolni topguncha ketma – ket amalga oshiriladi. Agar mos tushush aniqlansa, izlash to‘xtaydi va strpos() funktsiya butun sonni qaytaradi, u satrdagi simvol indeksidan iborat bo‘lib, birinchi mos tushushni aniqlaydi. Agar mos tushush aniqlanmasa, strpos() funktsiya false qiymatni qaytaradi.

```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$s=strpos($matn,$belgi);
 print "Bu matnning izlanayotgan belgi $s
ga teng";
?>
<form action="strpos.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Belgi kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



strrpos() funktsiya ham xuddi shu tariqa ishlaydi. Ammo, satrning oxiridan teskari tartibda izlashda simvol indeksini qaytaradi.

```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$s=strrpos($matn,$belgi);
 print "Bu matnning izlanayotgan belgi $s
ga teng";
?>
<form action="strrpos.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Belgi kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

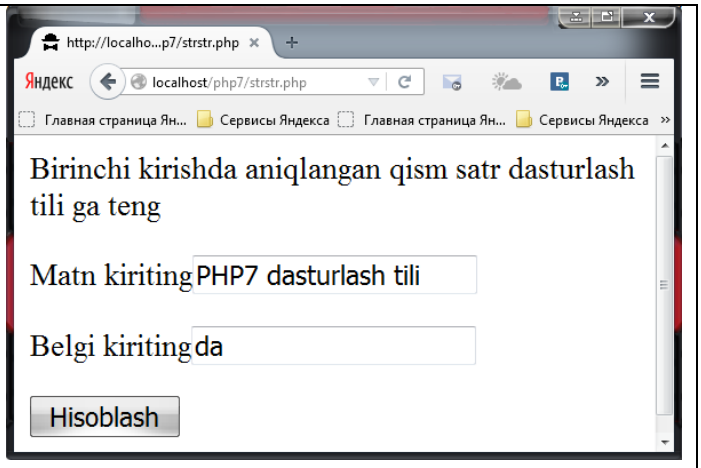


PHP7 dagi boshqa izlovchi funktsiyalar izlaniyotgan satrning bir qismini qaytarish imkonini beradi, u mos tushgan simvol o‘rnining sonli indeksini aniqlamaydi.

Strstr() funktsiya ikkita argumentni qabul qiladi, ulardan biri izlanishi lozim bo‘lgan satrni va ikkinchisi esa qism satrni ko‘rsatadi. Izlash satr boshidan boshlab ketma – ket to mos tushish kuzatilguncha amalga oshiriladi. Mos tushush aniqlangan zahotiyoq izlash tuxtatiladi va strstr() funktsiya izlaniyotgan satrning qolgan qismini qaytaradi, undan birinchi mos tushish boshlangan bo‘ladi. Agarda mos tushish aniqlanmasa strstr() funktsiya 0 ni qaytaradi.

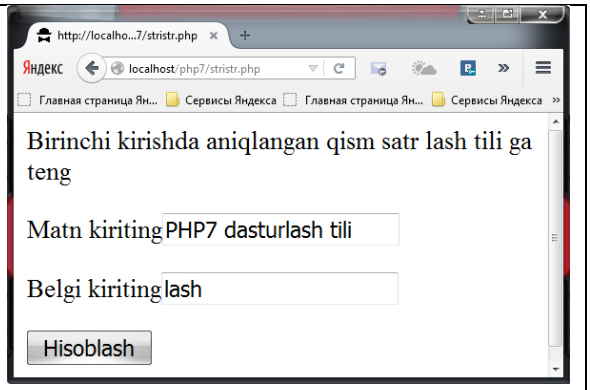
Shuni e’tiborga olish lozimki, strstr() funktsiyada teskari tartibda izlash (xuddi strrpos() funktsiyadagidek) mavjud emas.

```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$s=strstr($matn,$belgi);
 print "Birinchi kirishda aniqlangan
qism satr $s ga teng";
?>
<form action="strstr.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Belgi kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Agar simvollar registri qiymatga ega bo‘lmasa, PHP tilida stristr() funktsiyani qo‘llash mumkin, bu funktsiya registrni inobatga olmasdan izlashga imkon beradi. Bu funktsiyaning bajarilishi natijasida izlanayotgan satrning birinchi mos tushish boshlangan joyigacha bo‘lgan qismi registrni hisobga olmagan holda qaytariladi.

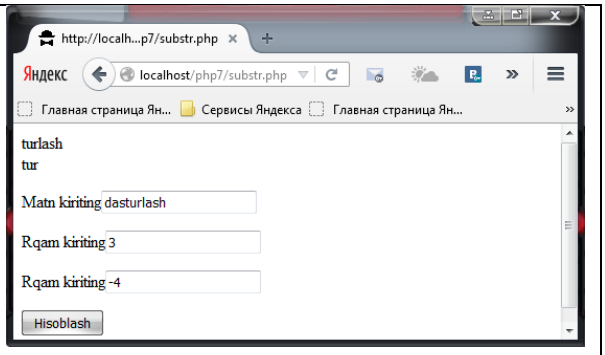
```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$s=stristr($matn,$belgi);
 print "Birinchi kirishda aniqlangan qism satr
$s ga teng";
?>
<form action="stristr.php" method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Belgi kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Strchr() funktsiya ham xuddi shunday ishlaydi, ammo, u ikkita argumentga ega bo‘ladi, ular izlanishi lozim bo‘lgan satrni va bitta izlanayotgan simvolni ko‘rsatadi. Strrchr() funktsiya satr oxiridan boshlab, teskari tartibda izlashni amalga oshiradi har ikkala funktsiya ham birinchi mos tushish boshlangan satrning izlanayotgan qismini qaytarishni bajaradi.

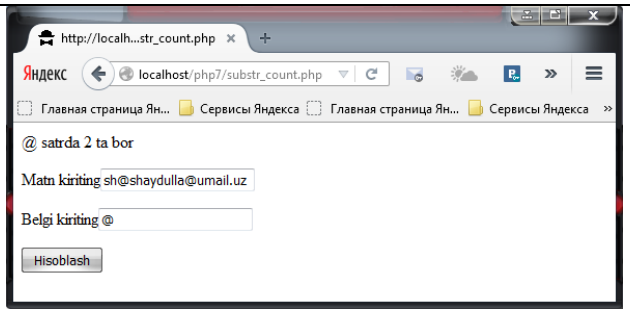
Qism satrni ajratib olishda satrdan uning ma’lum bir qismini substr() funktsiyasi yordamida ajratib olish mumkin, buning uchun uning argumentiga satrni va satrning qaysi pozitsiyasidan boshlab ajratib olishni ko‘rsatish lozim. Funktsiyaning uchinchi unchalik shart bo‘lmagan argumenti orqali qism satrning uzunligini ko‘rsatish mumkin.

```
<?php
$matn = $_POST['x'];
$raqam1 = $_POST['y'];
$raqam2 = $_POST['z'];
$s=substr($matn,$raqam1);
$s1=substr($matn,$raqam1,$raqam2);
 echo "$s<br>$s1";
?>
<form action="substr.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Rqam kiriting<input name="y"
type="text"></p>
<p> Rqam kiriting<input name="z"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Qism satrni substr_seplas() funksiyasi orqali almashtirish mumkin, bunda unga quyidagi argumentlarni berishimiz lozim: satrni, qism satrni, pozitsiyani va uzunligini. Satrdagi qism satrlarga umumiy kirishlarni substr_count() funktsiyasi yordamida aniqlash mumkin. Substr_count – satrdagi qismiy satrlarga kirishlar sonini hisoblaydi.

```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$s=substr_count($matn,$belgi);
 print "$belgi satrda $s ta bor";
?>
<form action="substr_count.php"
method="post">
```

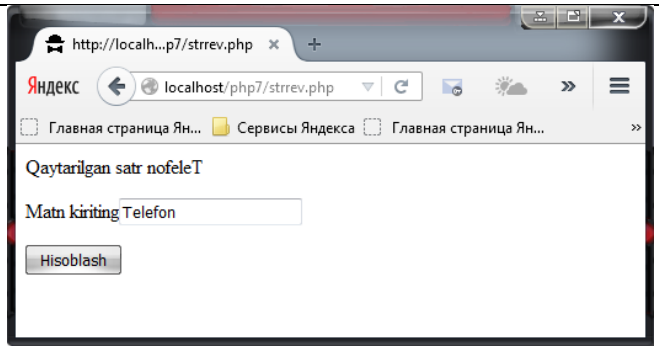


Matn kiriting<input name="x" type="text"> Belgi kiriting<input name="y" type="text"> <input type="submit" value="Hisoblash"> </form>	

6.3 SATRLARNI FORMATLASH

PHP7 tilida simvollarni boshqarish orqali satrlarni qulay formatlashga mo‘ljallangan bir nechta tuzilgan funktsiyalar mavjud. Ushbu sodda strrev() funktsiya bitta satrli argumentni qabul qiladi va ushbu satrni simvollarning teskari tartibda joylashuvini qaytaradi, qisqa qilib aytganda “orqadan oldinga qarab o‘qiydi”.

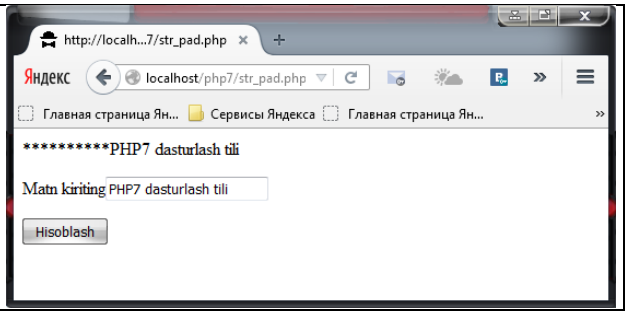
```
<?php
$matn = $_POST['x'];
$s=strrev($matn);
 print "Qaytarilgan satr $s";
?>
<form action="strrev.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Funktsiya strrpt() ikkita argumentni qabul qiladi, ulardan birinchi satrni va butun sondan iborat bo‘lgan ikkinchisi esa chiqarilayotganda ushbu satr necha marta qaytarilishini aniqlaydi.

Funktsiya str_pad() uchta argumentni qabul qiladi, ulardan birinchisi satrni, ikkinchisi qaytariladigan simvollar umumiy satrining uzunligini va uchinchi esa shablonli simvol yoki qismiy satr bo‘lib, uning bilan dastlabki satr ikkinchi argumentda ko‘rsatilgan uzunlikgacha to‘lg‘aziladi. Shablonli simvollar dastlabki satrning oxiridan joylashtiriladi, ammo, uni dastlabki satrning boshidan ham joylashtirishi mumkin bu esa to‘rtinchi argument yordamida amalga oshiriladi, ushbu argument maxsus str_pad_left bayroqchasiga ega bo‘ladi.

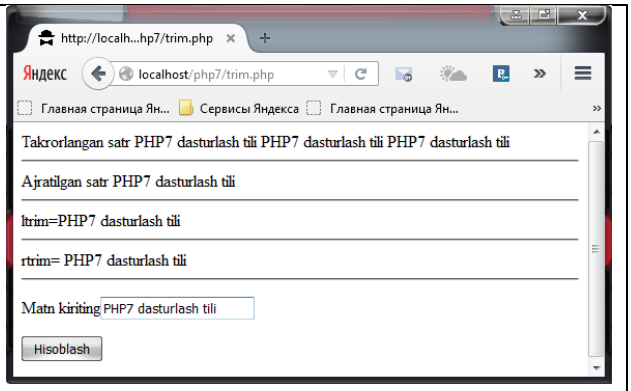
```
<?php
$matn = $_POST['x'];
$s=str_pad($matn,30,'*',STR_PAD_LEFT)
;
 echo "$s"
?>
<form action="str_pad.php"
```



```
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

Funktsiya trim() bitta satrli argumentni talab qiladi va dastlabki satrboshi va oxiridan bo‘sh simvollar (bo‘shliq, satrni qaytarish, tabulatsiya qilish) chiqarib tashlangan satrga qaytarishni ta’minlaydi. Optsional xarakatga ega bo‘lgan ikkinchi argument yordamida dastlabki satr boshi va oxiridan so‘zsiz olib tashlanishi lozim bo‘lgan simvol yoki simvollar guruhi ko‘rsatiladi.

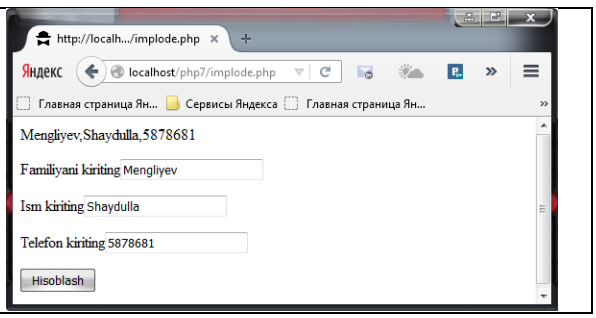
```
<?php
$matn = $_POST['x'];
$s=trim($matn,'|');
$s1=ltrim($matn);
$s2=rtrim($matn);
echo "Takrorlangan satr
".str_repeat($matn,3);
echo "<hr>Ajratilgan satr $s<hr>";
echo "ltrim=$s1<hr>";
echo "rtrim=$s2<hr>";
?>
<form action="trim.php" method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



Bundan tashqari, agarda dastlabki satrning boshidan simvollarni yo‘qotishi lozim bo‘lsa oxiridan simvollarni yo‘qotish lozim bo‘lsa – rtrim() funktsiyasini qo‘llash mumkin. Ltrim – satr boshidagi bo‘shlig‘ni yo‘qotadi.

Ushbu maslahatga rioya qilish foydadan holi emas. PHP tilidagi implode() va explode() funktsiyalar yordamida massivlarni satrga va satrlarni massivga aylantirish mumkin. implode() – massiv elementlarini satrga birlashtiradi (massiv satrga).

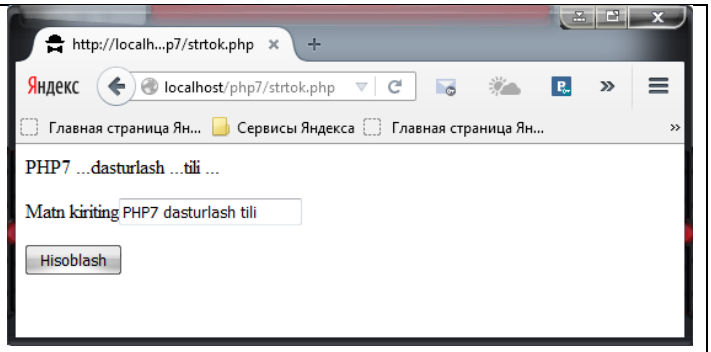
```
<?php
$fam = $_POST['fam'];
$ism = $_POST['ism'];
$tel = $_POST['t'];
$massiv = array($fam, $ism, $tel);
$s=implode(',',$massiv);
 print "$s";
```



```
?>
<form action="implode.php"
method="post">
<p> Familiyani kiriting<input name="fam"
type="text"></p>
<p> Ism kiriting<input name="ism"
type="text"></p>
<p> Telefon kiriting<input name="t"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

Strrok() funktiyasi yordamida satrni qism satrlarga aylantirish mumkin, bunda argumentlar sifatida tegishli satr va ajratish – markeri qaraladi, marker satr qaerdan ajratilishini ko‘rsatadi. Masalan, agar siz satrni alohida so‘zlarga ajratishni istasangiz, ajratish markeri sifatida bo‘shliq (probel) simvolini ko‘rsatishingiz mumkin. Ajratish – markerigacha bo‘lgan satrning birinchi qismi funktsiya tarafidan qaytariladi. E’tibor berish lozim, strtok() funktsiya satrdagi o‘z - o‘rnini eslab qoladi, bunda keyingi murojaatlarda faqat ajratish markeri satrning navbatdagi qismiga qaytarishni ko‘rsatishi lozim bo‘ladi. Satrning bunday qismini satrlarga ajratishni sikl yordamida juda yaxshi amalga oshirish mumkin, u satr oxiriga qadar yetguncha strtok() funktsiyaga qayta – qayta murojaatni takrorlaydi.

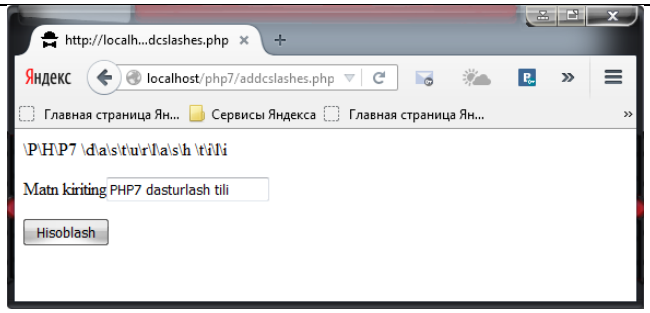
```
<?php
$matn = $_POST['x'];
$s=strtok($matn,' ');
while($s)
{
echo "$s ...";
$s=strtok('  ');
}
 ?>
<form action="strtok.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



6.4 SATRLAR BILAN ISHLASH FUNKTSIYASI VA UNING TADBIQI

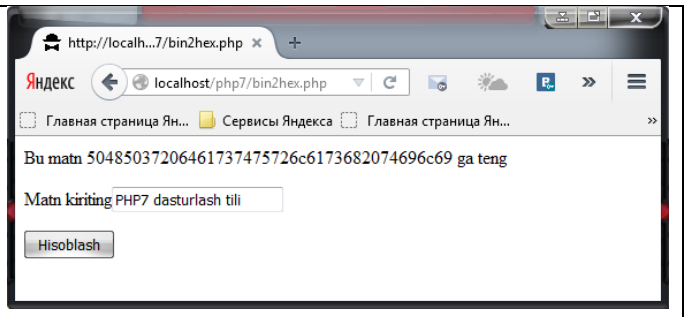
- addcslashes() – C tili ma’nosidagi maxsus simvollarni ekranga chiqaradi. stripcslashes – addcslashes() funktsiyasi bajargan ekranlashtirilgan simvollarni yo‘qotadi.

```
<?php
$matn = $_POST['x'];
$s=addcslashes($matn,'A..z');
print "$s";
?>
<form action="addcslashes.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



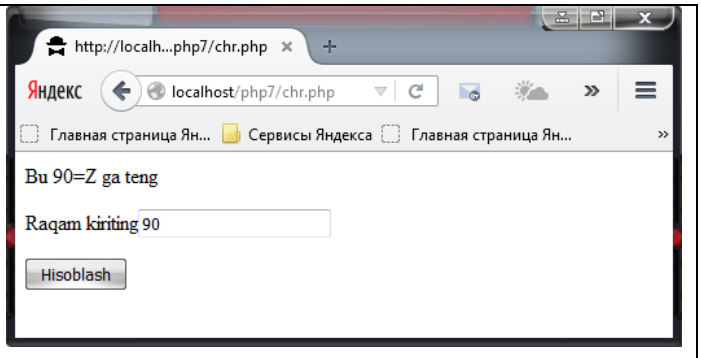
- bin2hex() – binar ma’lumotlarni o‘n oltilik sistemaga aylantiradi.

```
<?php
$Matn = $_POST['x'];
$s=bin2hex($Matn);
 print "Bu matn $s ga teng";
?>
<form action="bin2hex.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- chr() – simvolni uning kodi bo‘yicha qaytaradi.

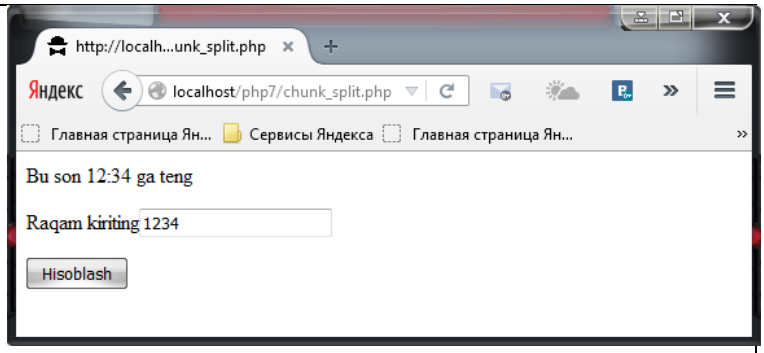
```
<?php
$son = $_POST['x'];
$s=chr($son);
 print "Bu $son=$s ga teng";
?>
<form action="chr.php"
method="post">
<p> Raqam kiriting<input name="x"
type="text"></p>
<p><input type="submit"
```



value="Hisoblash"></p> </form>	

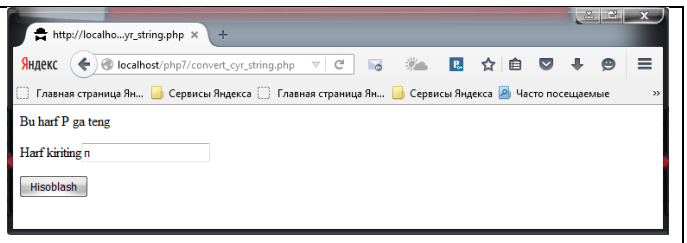
- chunk_split() – satrni jumlalarga ajratadi.

```
<?php
$son = $_POST['x'];
$s=substr(chunk_split($son,2,':'),0
,-1);
 print "Bu son $s ga teng";
?>
<form action="chunk_split.php"
method="post">
<p> Raqam kiriting<input
name="x" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



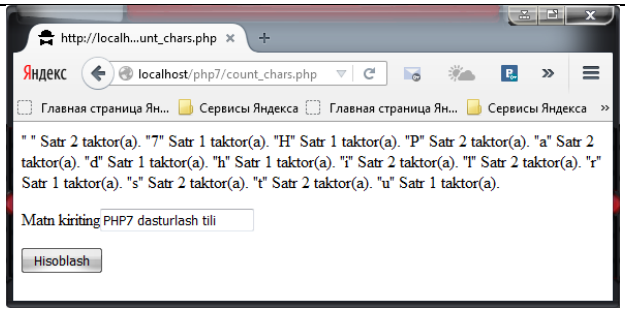
- convert_cyr_string() – satrni bir kirilcha koddan ikkinchisiga almashtiradi.
  k - koi8-r;
  w - windows-1251;
  i - iso8859-5;
  a - x-cp866;
  d - x-cp866;
  m - x-mac-cyrillic;

```
<?php
$harf = $_POST['x'];
$s=convert_cyr_string($harf,w,k);
 print "Bu harf $s ga teng";
?>
<form action="convert_cyr_string.php"
method="post">
<p> Harf kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



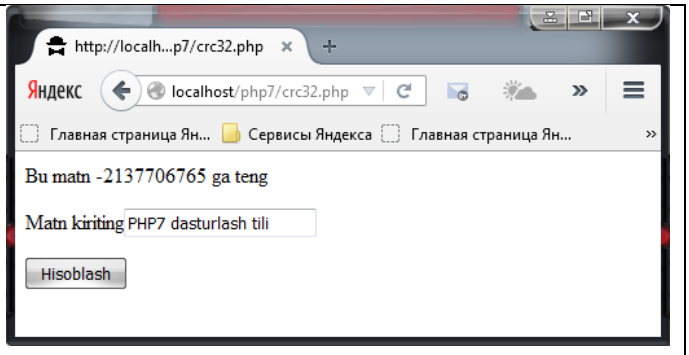
- count_chars() – satr tarkibiga kiruvchi simvollar to‘g‘risidagi ma’lumotlarni qaytaradi.

```
<?php
$matn = $_POST['x'];
$s=count_chars($matn,0);
for ($i=0; $i < count($s); $i++)
{
if ($s[$i] != 0)
echo "\"" , chr($i) , "\" Satr $s[$i]
taktor(a).\n";
}
?>
<form action="count_chars.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



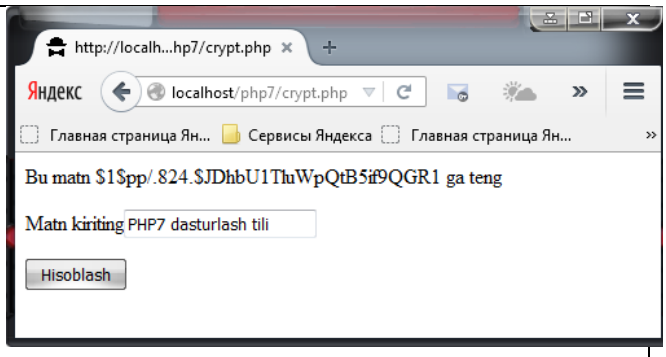
- crc32() – satr uchun crc32 ni hisoblaydi.

```
<?php
$Matn = $_POST['x'];
$s=crc32($Matn);
 print "Bu matn $s ga teng";
?>
<form action="crc32.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



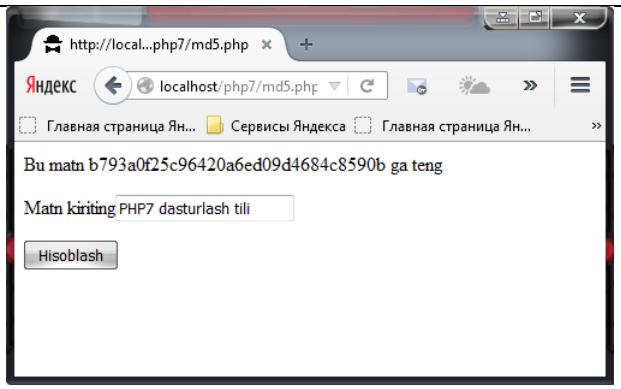
- crypt() – qaytarilmaydigan shifrlash (xeshifrlash).

```
<?php
$Matn = $_POST['x'];
$s=crypt($Matn);
 print "Bu matn $s ga teng";
?>
<form action="crypt.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
```

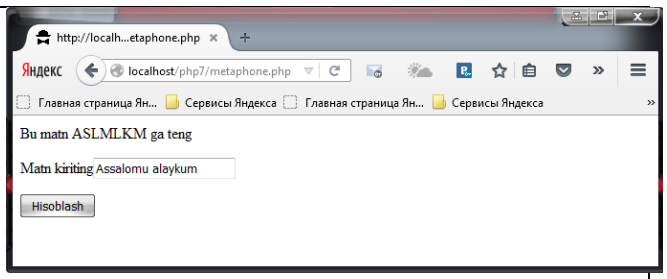


value="Hisoblash"> </form>	

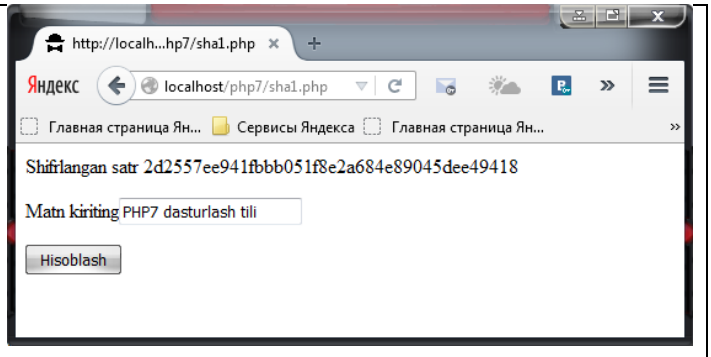
- md5() – md5 ni xesh satrga aylantiradi.
- md5_file() – md5 ni xesh faylga aylantiradi.

<?php $Matn = $_POST['x']; $s=md5($Matn); print "Bu matn $s ga teng"; ?> <form action="md5.php" method="post"> Matn kiriting<input name="x" type="text"> <input type="submit" value="Hisoblash"> </form>	

- metaphone() – satr uchun metaphone kalitni qaytaradi.

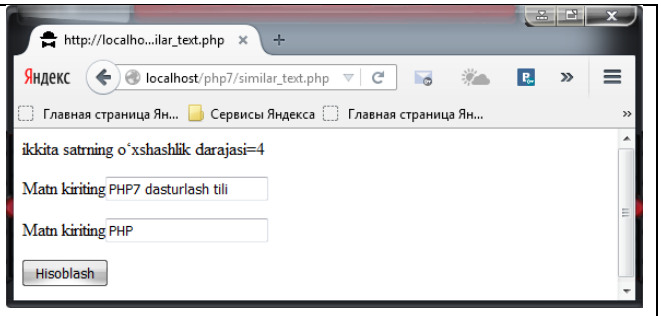
<?php $Matn = $_POST['x']; $s=metaphone($Matn); print "Bu matn $s ga teng"; ?> <form action="metaphone.php" method="post"> Matn kiriting<input name="x" type="text"> <input type="submit" value="Hisoblash"> </form>	

- sha1 – sha1 ni xesh satrga qaytaradi.
- sha1_file – sha1 ni xesh faylga qaytaradi.

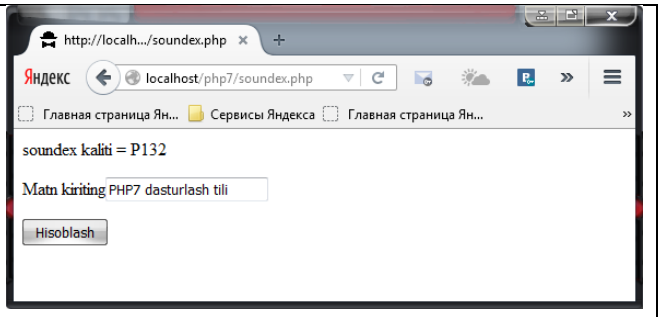
<?php $matn = $_POST['x']; $s=sha1($matn); echo "Shifrlangan satr $s" ?> <form action="sha1.php" method="post"> Matn kiriting<input name="x" type="text">	

<input type="submit" value="Hisoblash"> </form>	

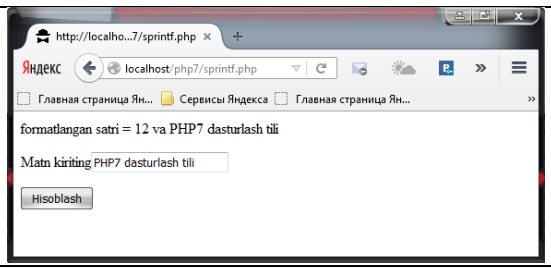
- similar_text() – ikkita satrning o‘xshashlik darajasini hisoblaydi.

<?php $matn1 = $_POST['x']; $matn2 = $_POST['y']; $s=similar_text($matn1,$matn2); echo"ikkita satrning o‘xshashlik darajasi=$s"; ?> <form action="similar_text.php" method="post"> Matn kiriting<input name="x" type="text"> Matn kiriting<input name="y" type="text"> <input type="submit" value="Hisoblash"> </form>	

- soundex() – satr uchun soundex kalitni qaytaradi.

<?php $matn = $_POST['x']; $s=soundex($matn); print "soundex kaliti = $s"; ?> <form action="soundex.php" method="post"> Matn kiriting<input name="x" type="text"> <input type="submit" value="Hisoblash"> </form>	

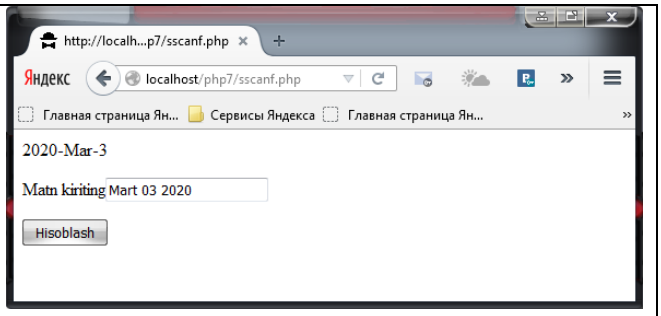
- sprint() –formatlangan satrni qaytaradi.

<?php $matn = $_POST['x']; $num=12; $format = '%d va %s'; $s=sprintf($format,$num,$matn); print "formatlangan satri = $s";	

```
?>
<form action="sprintf.php" method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

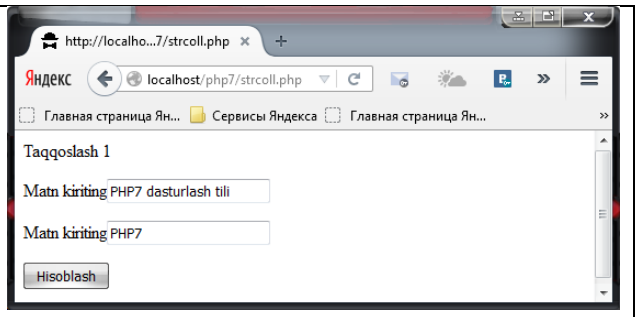
- sscanf() – satrni berilgan format bo‘yicha muhokama qiladi.

```
<?php
$mandate = $_POST['x'];
list($month, $day, $year) =
sscanf($mandate, "%s %d %d");
echo "$year-" . substr($month, 0, 3) . "-
$day\n";
?>
<form action="sscanf.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



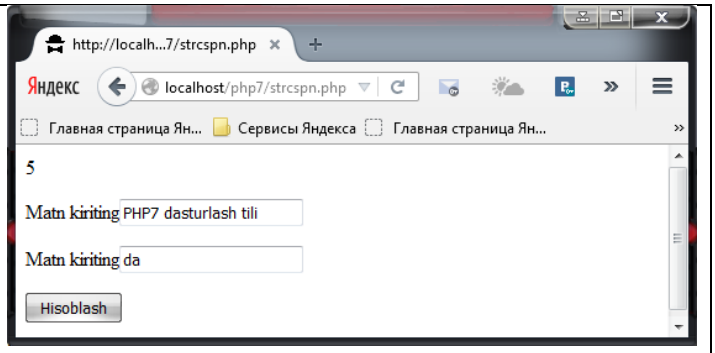
- strcoll() – joriy local holatni inobatga olgan holda satrlarni taqqoslaydi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strcoll($matn1,$matn2);
echo "Taqqoslash $s"
?>
<form action="strcoll.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



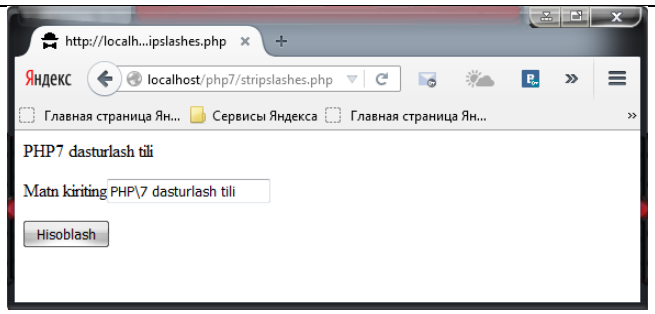
- strcspn() –maskaga mos kelmaydigan satr uzunligini satr boshiga qaytaradi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strcspn($matn1,$matn2);
echo "$s"
?>
<form action="strcspn.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



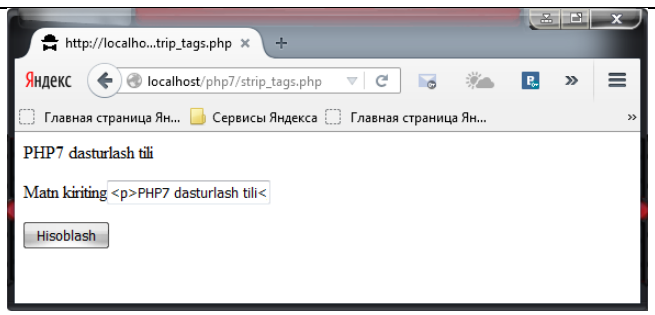
- stripslashes() – addslashes() funktsiyasi bajargan ekranlashtirilgan simvollarni yo‘qotadi.

```
<?php
$matn = $_POST['x'];
$s=stripslashes($matn);
echo "$s"
?>
<form action="stripslashes.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



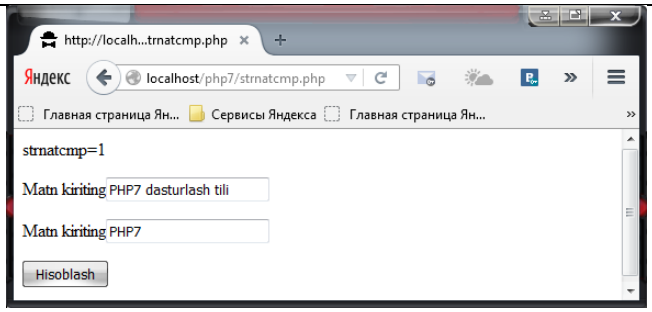
- strip_tags() – HTML va PHP teglarni satrdan yo‘qotadi.

```
<?php
$matn = $_POST['x'];
$s=strip_tags($matn,'<p>');
echo "$s"
?>
<form action="strip_tags.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



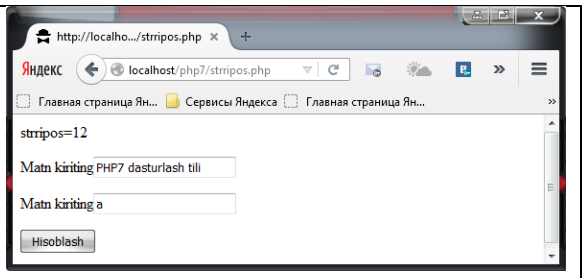
- strnatcmp() – “tabiiy tartiblashtirish” algoritmidan foydalanib satrlarni taqqoslaydi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strnatcmp($matn1,$matn2);
echo "strnatcmp=$s";
?>
<form action="strnatcmp.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



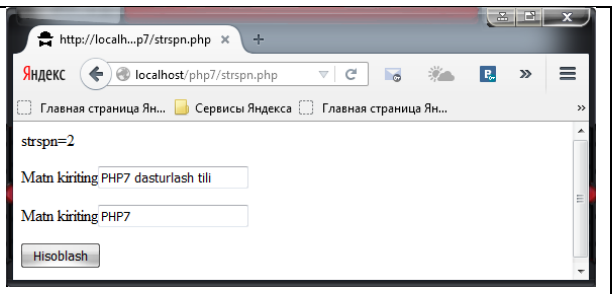
- strripos() – registrni hisobga olmasdan qism satrga oxirgi kirish pozitsiyasini qaytaradi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strripos($matn1,$matn2);
echo "strripos=$s";
?>
<form action="strripos.php" method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



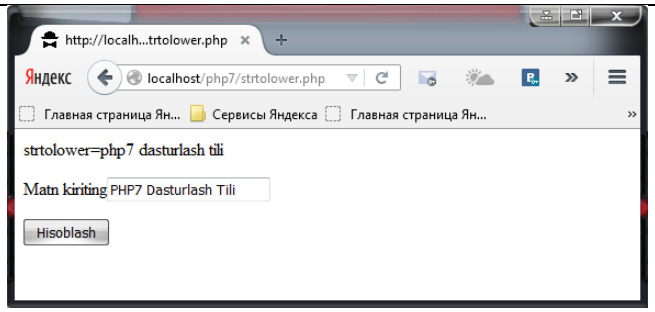
- strspn() – maskaga mos keluvchi satr boshidagi soha uzunligini qaytaradi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=strspn($matn1,$matn2,'1','2');
echo "strspn=$s";
?>
<form action="strspn.php" method="post">
```

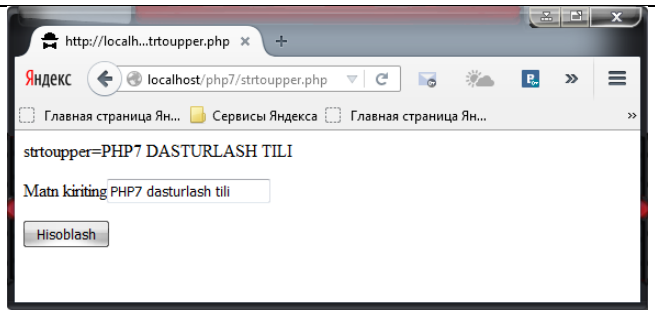


Matn kiriting<input name="x" type="text"> Matn kiriting<input name="y" type="text"> <input type="submit" value="Hisoblash"> </form>	

- strtolower() – satrni quyi registrga aylantiradi. Katta harflarni kichik harflarga almashtiradi.

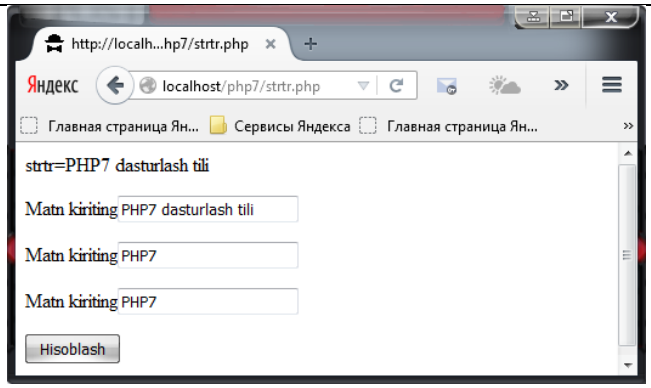
<?php $matn = $_POST['x']; $s=strtolower($matn); echo "strtolower=$s"; ?> <form action="strtolower.php" method="post"> Matn kiriting<input name="x" type="text"> <input type="submit" value="Hisoblash"> </form>	

- strtoupper() – satrni yuqori registrga aylantiradi. Kichik harflarni katta harflarga almashtiradi.

<?php $matn = $_POST['x']; $s=strtoupper($matn); echo "strtoupper=$s"; ?> <form action="strtoupper.php" method="post"> Matn kiriting<input name="x" type="text"> <input type="submit" value="Hisoblash"> </form>	

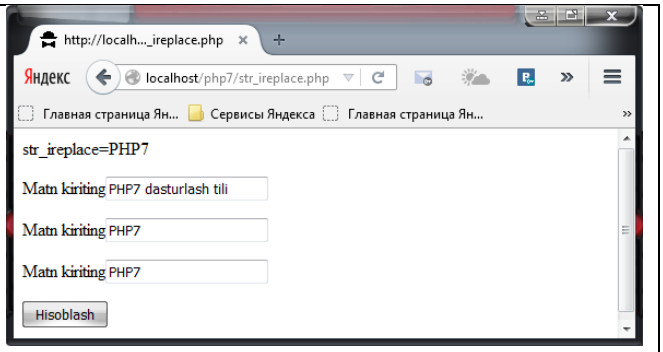
- strtr() – berilgan simvollarni ajratadi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$matn3 = $_POST['z'];
$s=strtr($matn1,$matn3,$matn3);
echo "strtr=$s";
?>
<form action="strtr.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p> Matn kiriting<input name="z"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



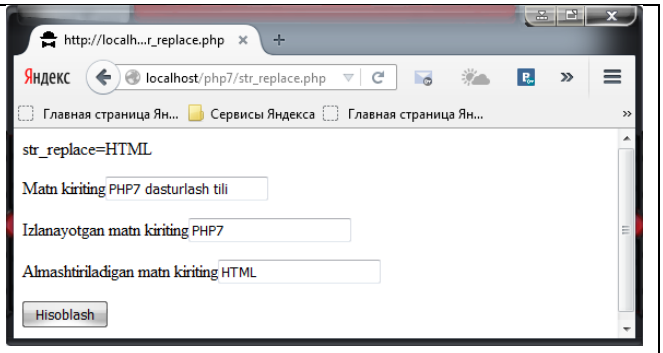
- str_ireplace() – str_replace() funktsiyasining registrga bog‘liq bo‘lmagan variantidan iborat.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$matn3 = $_POST['z'];
$s=str_ireplace($matn1,$matn3,$matn3);
echo "str_ireplace=$s";
?>
<form action="str_ireplace.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p> Matn kiriting<input name="z"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



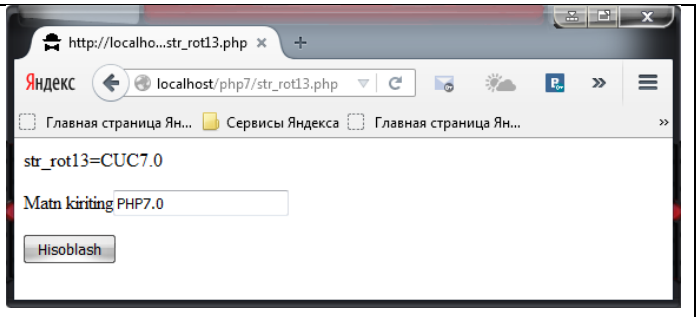
- str_replace() – izlanayotgan satrni almashtirilishi lozim bo‘lgan satrga almashtiradi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$matn3 = $_POST['z'];
$s=str_ireplace($matn1,$matn3,$matn3);
echo "str_ireplace=$s";
?>
<form action="str_ireplace.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Matn kiriting<input name="y"
type="text"></p>
<p> Matn kiriting<input name="z"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



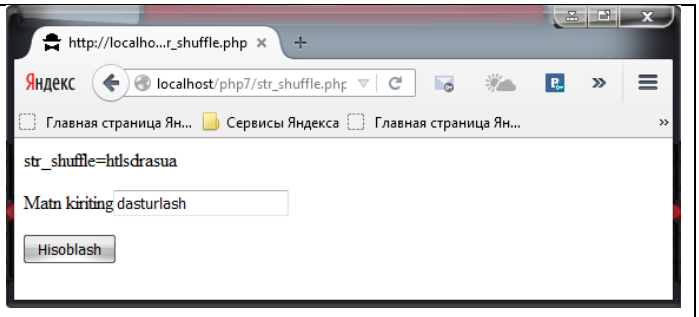
- str_rot13() – satr ustida ROT13 almashtirishni bajaradi.

```
<?php
$matn = $_POST['x'];
$s=str_rot13($matn);
echo "str_rot13=$s";
?>
<form action="str_rot13.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



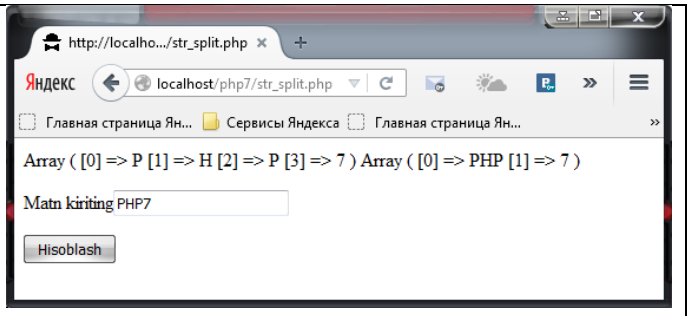
- str_shuffle() – satrdagi simvollar o‘rnini almashtiradi.

```
<?php
$matn = $_POST['x'];
$s=str_shuffle($matn);
echo "str_shuffle=$s";
?>
<form action="str_shuffle.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
```

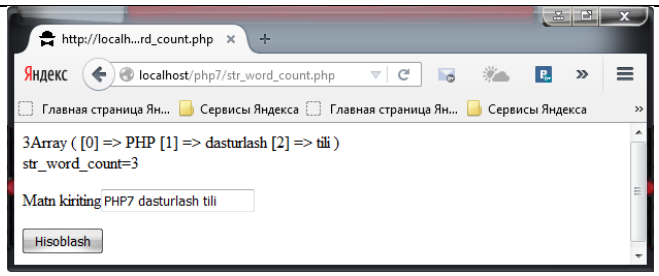


<input type="submit" value="Hisoblash"> </form>	

- str_split() – satrni massivga aylantiradi.

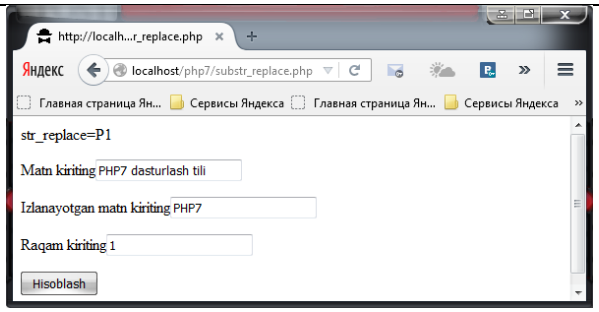
<?php
$matn = $_POST['x'];
$massiv=str_split($matn);
$massiv1=str_split($matn,3);
print_r($massiv);
print_r($massiv1);
?>
<form action="str_split.php"
method="post">
 Matn kiriting<input name="x"
type="text">
 <input type="submit"
value="Hisoblash">
</form>
	

- str_word_count() – satrga kiruvchi so‘zlar haqidagi ma’lumotlarni qaytaradi.

<?php
$matn = $_POST['x'];
$s=str_word_count($matn);
$s1=str_word_count($matn,'1');
print_r($s);
print_r($s1);
echo "
str_word_count=$s";
?>
<form action="str_word_count.php"
method="post">
 Matn kiriting<input name="x"
type="text">
 <input type="submit"
value="Hisoblash">
</form>
	

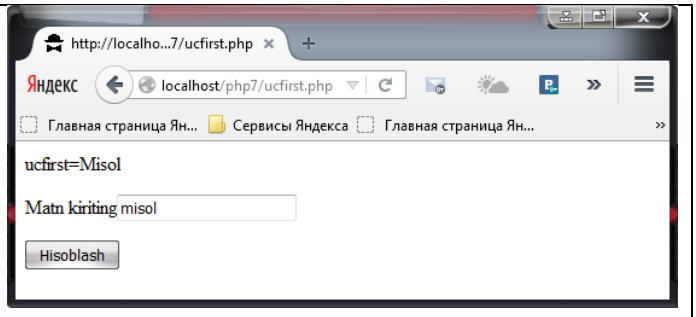
- substr_replace() – satrning qismini ajratadi.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$matn3 = $_POST['z'];
$s=substr_replace($matn1,$matn3,$matn3);
echo "str_replace=$s";
?>
<form action="substr_replace.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Izlanayotgan matn kiriting<input
name="y" type="text"></p>
<p> Raqam kiriting<input name="z"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



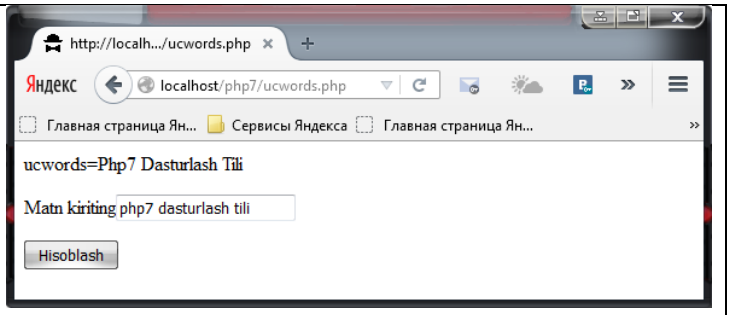
- ucfirst() – satrdagi birinchi simvolni yuqori registrga aylantiradi.

```
<?php
$matn = $_POST['x'];
$s=ucfirst($matn);
echo "ucfirst=$s";
?>
<form action="ucfirst.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



- ucwords() – satrdagi har bir so‘zning birinchi simvolini yuqori registrga aylantiradi.

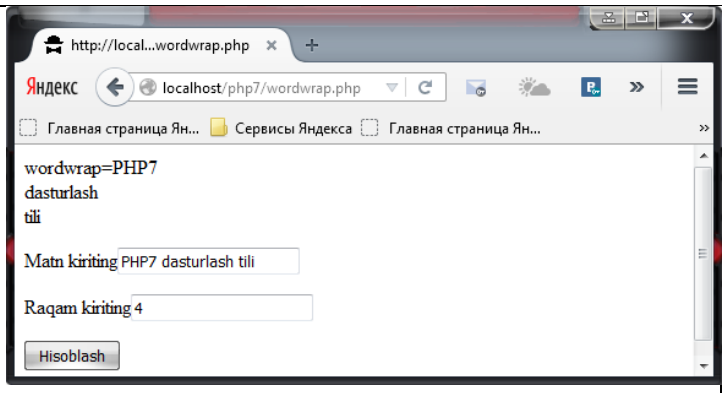
```
<?php
$matn = $_POST['x'];
$s=ucwords($matn);
echo "ucwords=$s";
?>
<form action="ucwords.php"
method="post">
<p> Matn kiriting<input name="x"
```



```
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

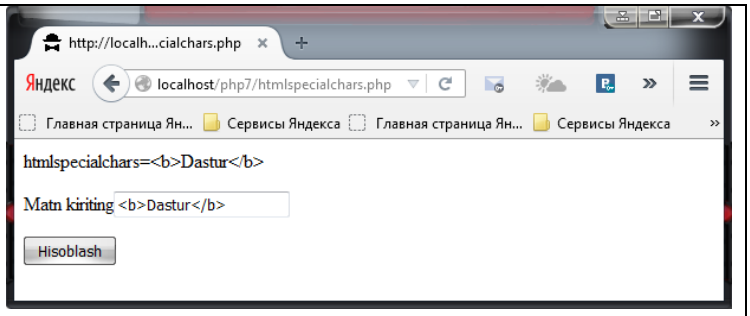
- wordwrap() – satrdagi simvollar uzilishidan foydalanib satrni berilgan simvollar soniga mos qilib siljitishni ta’minlaydi.

```
<?php
$matn = $_POST['x'];
$raqam = $_POST['y'];
$s=wordwrap($matn,$raqam,"<br>"
);
echo "wordwrap=$s";
?>
<form action="wordwrap.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Raqam kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



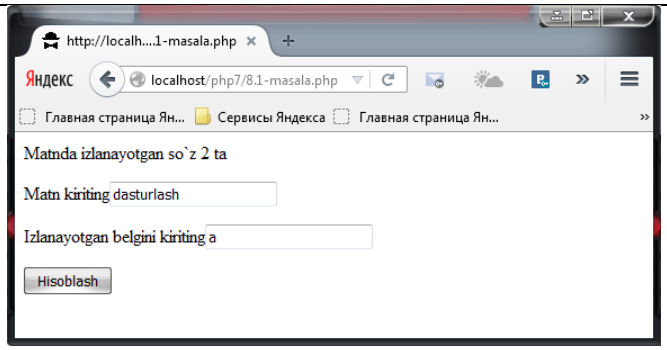
- Htmlspecialchars – maxsus simvollarni HTML mohiyatiga mos qilib almashtiradi.

```
<?php
$matn = $_POST['x'];
$s=htmlspecialchars($matn);
echo "htmlspecialchars=$s";
?>
<form
action="htmlspecialchars.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



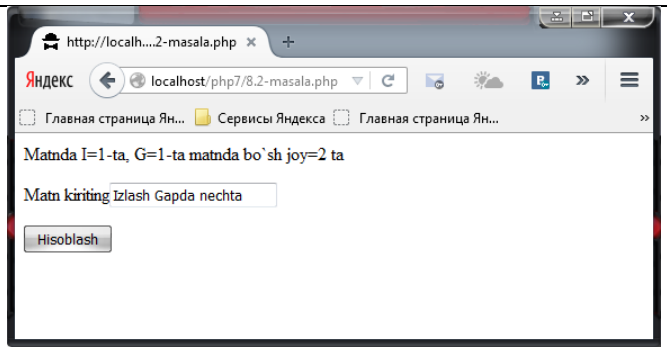
8.1-masala. N ta so‘zdan tashkil topgan matnda berilgan so‘z necha marta uchrashini aniqlang.

```
<?php
$matn = $_POST['x'];
$belgi = $_POST['y'];
$m=strlen($matn);
$n=strlen($belgi);
$b=0;
for($i=1;$i<$m-$n+1;$i++)
if (substr($matn,$i,$n)==$belgi)
$b=$b+1;
elseif ($b==0)
echo "Matnda izlanayotgan so‘z yo‘q";
else
echo "Matnda izlanayotgan so‘z $b ta";
?>
<form action="8.1-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Izlanayotgan belgini kiriting<input
name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



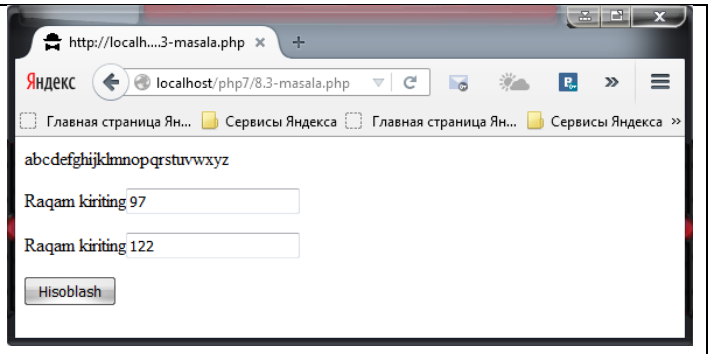
8.2-masala. Berilgan matndagi G va I harflar hamda bo‘sh joylar sonini aniqlang.

```
<?php
$matn = $_POST['x'];
$m=0; $n=0;$k=0;
for($i=0;$i<strlen($matn);$i++)
{
$S=substr($matn,$i,1);
if ($S=='I') $n=$n+1;
if ($S=='G') $m=$m+1;
if ($S==' ') $k=$k+1;
}
echo "Matnda I=$n-ta, G=$m-ta matnda
bo`sh joy=$k ta ";
?>
<form action="8.2-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



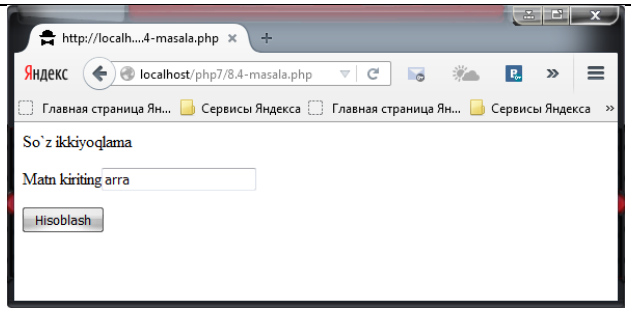
8.3-masala. ASC II jadvalidan kichik lotin harflarni chiqaring.

```
<?php
$n=$_POST['n'];
$m=$_POST['m'];
for($i=$n; $i<=$m; $i++)
echo chr($i);
?>
<form action="8.3-masala.php"
method="post">
<p> Raqam kiriting<input name="n"
type="text"></p>
<p> Raqam kiriting<input name="m"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



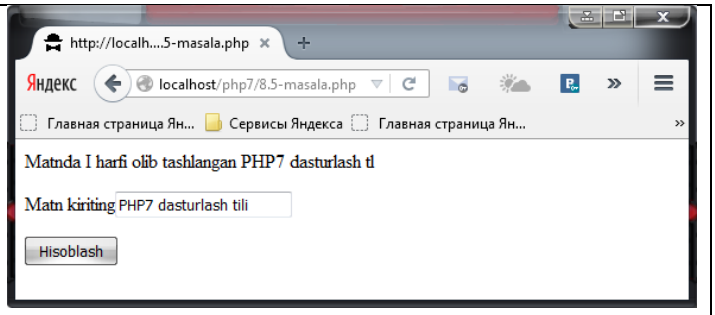
8.4-masala. Berilgan so‘z ikkiyoqlama bo‘lishini aniqlang.

```
<?php
$matn = $_POST['x'];
$s=strlen($matn); $t=0;
for($i=1;$i<ceil($s/2);$i++)
{
if (substr($matn,0,$i)==substr($matn,-
$i))
{
$t=$t+1;
echo "So`z ikkiyoqlama";
}
elseif ($t == ($s%2))
echo "So`z ikkiyoqlama emas";
}
?>
<form action="8.4-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



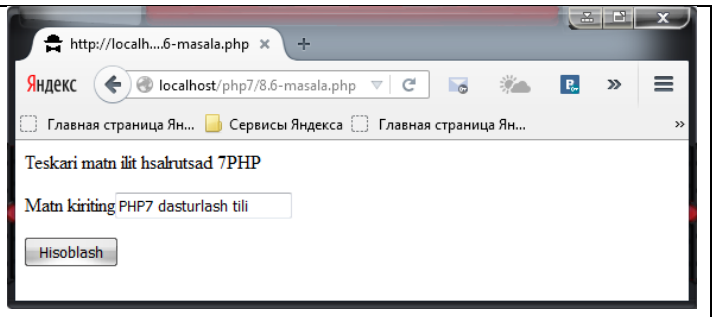
8.5-masala. Berilgan matndagi hamma I harflarni olib tashlang.

```
<?php
$matn = $_POST['x'];
$olish=array("i","I");
$s=str_replace($olish,"",$matn);
echo "Matnda I harfi olib tashlangan
$s";
?>
<form action="8.5-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



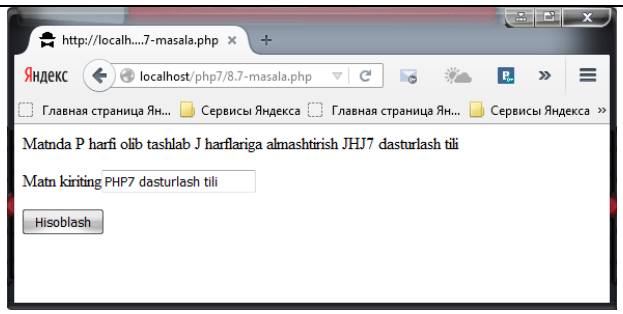
8.6-masala. Berilgan matnni teskarisi tartibda yozing.

```
<?php
$matn = $_POST['x'];
$s=strrev($matn);
 print "Teskari matn $s";
?>
<form action="8.6-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



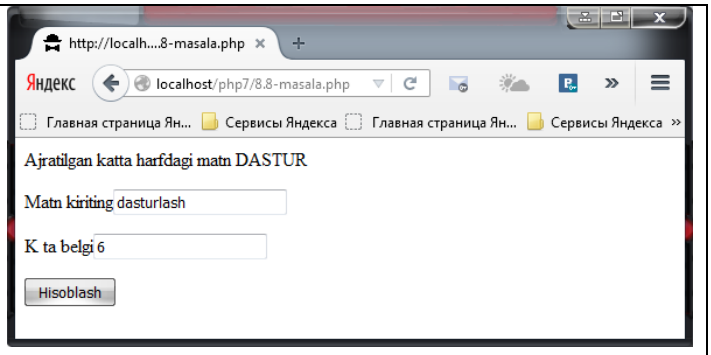
8.7-masala. Berilgan matndagi P harflarni J harflarga almashtiring.

```
<?php
$matn = $_POST['x'];
$s=str_replace("P","J",$matn);
echo "Matnda P harfi olib tashlab J
harflariga almashtirish $s";
?>
<form action="8.7-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



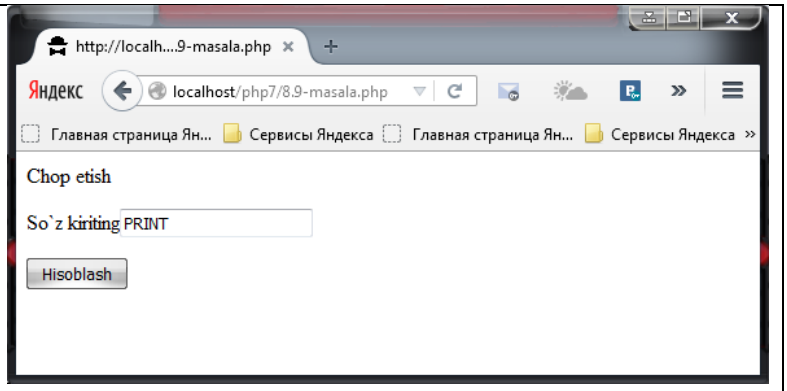
8.8-masala. Matnda uzunligi K ta belgidan katta bo‘lgan so‘zlarni ajratilib yangi matnga yozish dasturini tuzing**.**

```
<?php
$matn = $_POST['x'];
$K = $_POST['k'];
$s=strtoupper(substr($matn,0,$K));
echo "Ajratilgan katta harfdagi matn
$s";
?>
<form action="8.8-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> K ta belgi<input name="k"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



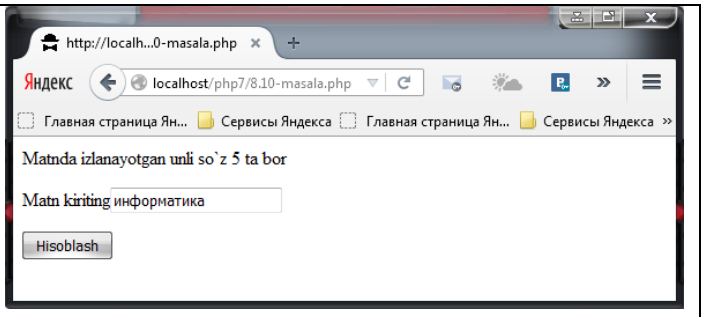
8.9-masala. Inglizcha - o‘zbekcha lug‘atni tuzing. Bunda inglizcha so‘z kiritilganda uning tarjimasi natija sifatida olinishini ta’minlang.

```
<?php
$matn = $_POST['x'];
if ($matn=='REM')  echo "Izoh";
if ($matn=='IF') echo "Agar";
if ($matn=='FOR') echo
"Uchun";
if ($matn=='INPUT') echo
"Kiritish";
if ($matn=='STOP') echo
"To`xta";
if ($matn=='PRINT') echo
"Chop etish";
if ($matn=='RUN') echo
"Bajar";
?>
<form action="8.9-masala.php"
method="post">
<p> So`z kiriting<input
name="x" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



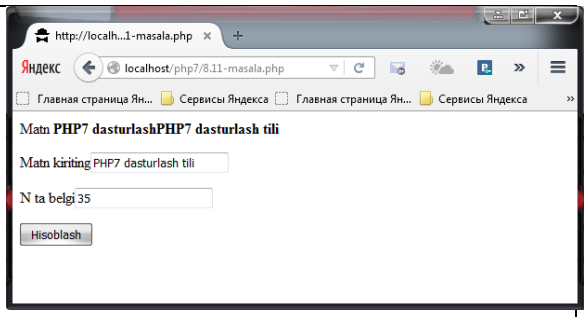
8.10-masala. Matndagi so‘zlarda nechta unli harflar borligini aniqlovchi dastur tuzing.

```
<?php
$matn = $_POST['x'];
$unli='аоиуеэяўё';
$s=0;
for($i=0;$i<strlen($matn);$i++)
for($j=0;$j<strlen($unli);$j++)
if (substr($matn,$i,1)==substr($unli,-
$j,1))
$s=$s+1;
echo "Matnda izlanayotgan unli so‘z
$s ta bor";
?>
<form action="8.10-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



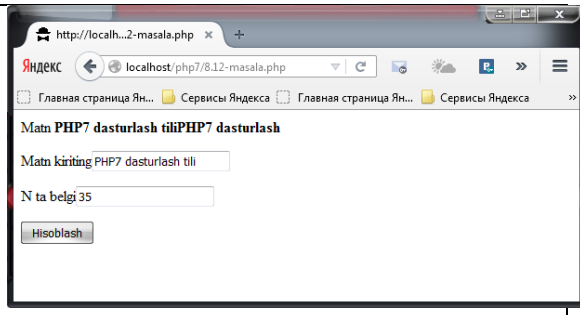
8.11-masala. Berilgan matnning chap tomonidan N ta belgilarni ajrating.

```
<?php
$matn = $_POST['x'];
$N = $_POST['n'];
$s=str_pad($matn,$N,$matn,STR_PAD_LEF
T);
echo "Matn <b>$s</b>";
?>
<form action="8.11-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> N ta belgi<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



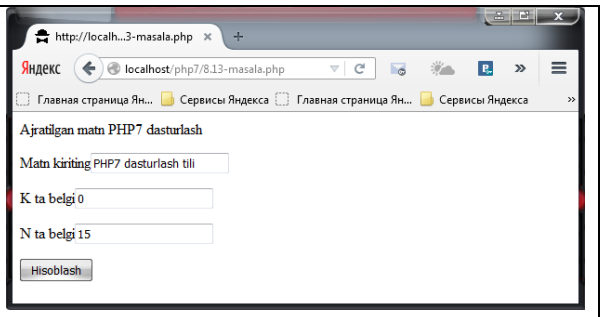
8.12-masala. Berilgan matnning o‘ng tomonidan N ta belgilarni ajrating.

```
<?php
$matn = $_POST['x'];
$N = $_POST['n'];
$s=str_pad($matn,$N,$matn,STR_PAD_RIGHT);
echo "Matn <b>$s</b>";
?>
<form action="8.12-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> N ta belgi<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



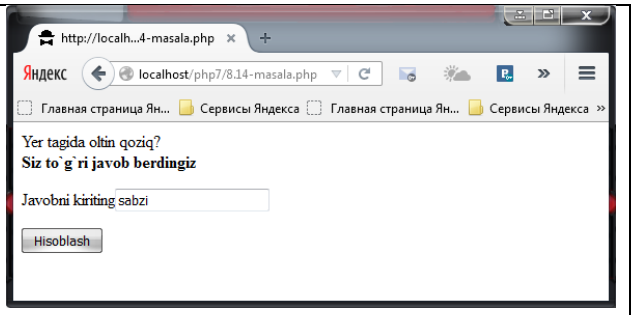
8.13-masala. Berilgan matnning orasidagi K-simvoldan N-simvolgacha bo‘lgan belgilarni ajrating**.**

```
<?php
$matn = $_POST['x'];
$BelgiK = $_POST['k'];
$BelgiN = $_POST['n'];
$s=substr($matn,$BelgiK,$BelgiN-
$BelgiK);
echo "Ajratilgan matn $s";
?>
<form action="8.13-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> K ta belgi<input name="k"
type="text"></p>
<p> N ta belgi<input name="n"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



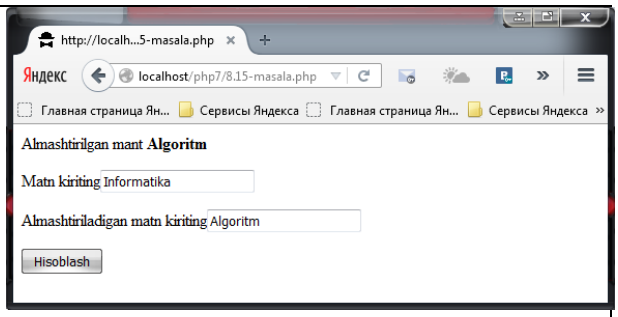
8.14-masala. Topishmoq topish va uning javobini tahlil qilish dasturini tuzing**.**

```
<?php
$matn = $_POST['x'];
echo "Yer tagida oltin qoziq?<br>";
if ($matn=='sabzi')
echo "<b>Siz to‘g‘ri javob
berdingiz</b>";
else
echo "Siz noto‘g‘ri javob berdingiz";
?>
<form action="8.14-masala.php"
method="post">
<p> Javobni kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



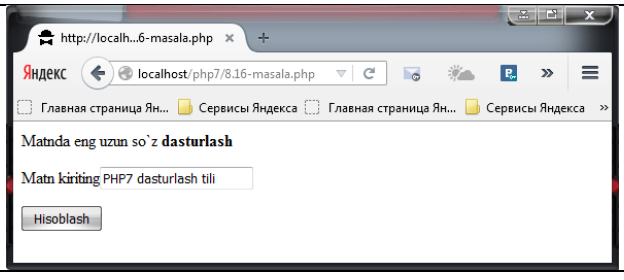
8.15-masala. Matndagi INFORMATIKA so‘zini ALGORITM so‘zi bilan almashtirish dasturini tuzing.

```
<?php
$matn1 = $_POST['x'];
$matn2 = $_POST['y'];
$s=str_replace("$matn1","$matn2",$matn1)
;
echo "Almashtirilgan mant <b>$s</b>";
?>
<form action="8.15-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Almashtiriladigan matn kiriting<input
name="y" type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



8.16-masala. Berilgan N ta so‘zlardan eng uzunini aniqlang.

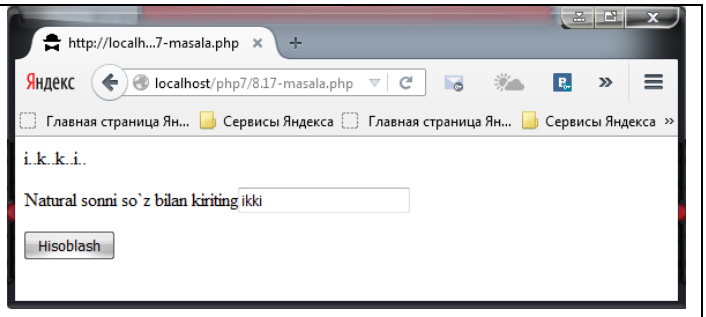
```
<?php
$matn = $_POST['x'];
$s=strtok($matn,' ');
$max1=strlen($s);
while($s)
{
```



```
$max=strlen($s);
if ($max>$max1)
echo "Matnda eng uzun so‘z <b>$s</b>";
$s=strtok(' ');
}
?>
<form action="8.16-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

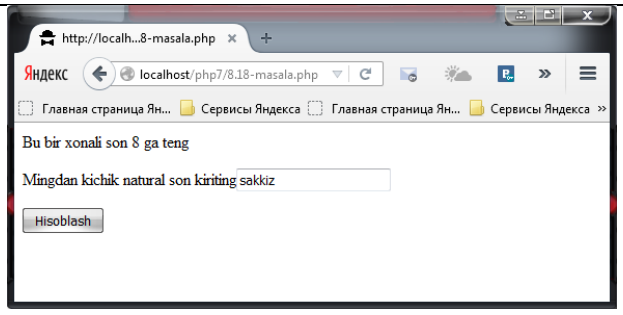
8.17-masala. Berilgan natural sonning xona birliklarini ajratib yozing.

```
<?php
$matn = $_POST['x'];
$s1=strlen($matn);
for($i=0;$i<$s1;$i++)
{
$sn=trim(substr($matn,$i,1),' ');
echo "$sn..";
}
?>
<form action="8.17-masala.php"
method="post">
<p> Natural sonni so`z bilan
kiriting<input name="x"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



8.18-masala. O‘ndan kichik bo‘lgan so‘zlarni ularga mos natural sonda chop eting.

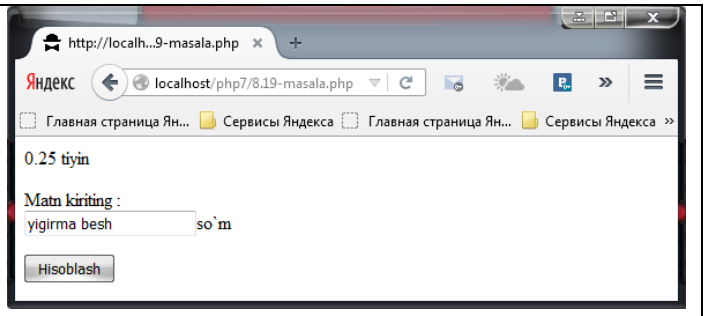
```
<?php
$matn = $_POST['m'];
$n=strlen($matn);
if (substr($matn,0,$n)=='bir')  $t=1;
if (substr($matn,0,$n)=='ikki')  $t=2;
if (substr($matn,0,$n)=='uch')  $t=3;
if (substr($matn,0,$n)=='to`rt')  $t=4;
if (substr($matn,0,$n)=='besh')  $t=5;
if (substr($matn,0,$n)=='olti')  $t=6;
```



```
if (substr($matn,0,$n)=='yetti')  $t=7;
if (substr($matn,0,$n)=='sakkiz')  $t=8;
if (substr($matn,0,$n)=='to`qqiz')
$t=9;
echo "Bu bir xonali son $t ga teng";
?>
<form action="8.18-masala.php"
method="post">
<p> Mingdan kichik natural son
kiriting<input name="m"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```

8.19-masala. Tiyinlarda berilgan pulni so‘m bilan ifodalang. Bunda tiyinlar ikki xonali sonlar bilan ifodalanadi.

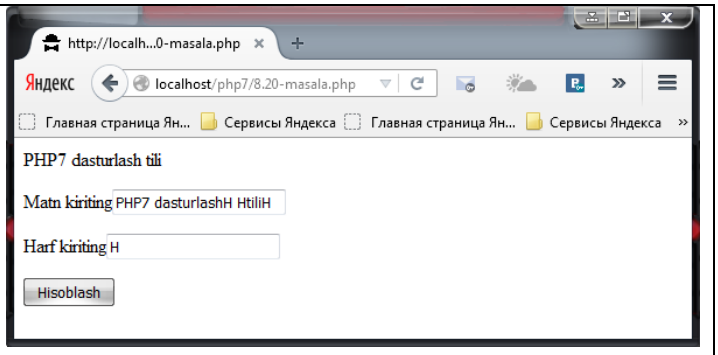
```
<?php
$m=$_POST['y'];
$n=strlen($m);
for($i=1;$i<$n;$i++)
$m1=strtok(substr($m,0,$i),' ');
{
if ($m1=='o‘n') $un=10;
if ($m1=='yigirma') $un=20;
if ($m1=='o‘ttiz') $un=30;
if ($m1=='qirq') $un=40;
if ($m1=='ellik') $un=50;
if ($m1=='oltmish') $un=60;
if ($m1=='yetmish') $un=70;
if ($m1=='sakson') $un=80;
if ($m1=='to‘qson') $un=90;
$m=Ltrim(strstr($m,' '));
{
if ($m=='bir') $bir=1;
if ($m=='ikki') $bir=2;
if ($m=='uch') $bir=3;
if ($m=='to‘rt') $bir=4;
if ($m=='besh') $bir=5;
if ($m=='olti') $bir=6;
if ($m=='yetti') $bir=7;
if ($m=='sakkiz') $bir=8;
if ($m=='to‘qqiz') $bir=9;
$natija=$un/100+$bir/100;
```



```
}
}
echo  "$natija tiyin";
?>
<form action="8.19-masala.php"
method="Post">
<p>Matn kiriting : <br><input
name="y" >so`m </p>
<p><input name="submit"
type="Submit"
value="Hisoblash"></p>
</form>
```

8.20-masala. Tushirib qoldirilgan harf o‘rniga H harfni yozishni o‘rgatuvchi dastur tuzing.

```
<?php
$matn = $_POST['x'];
$b = $_POST['y'];
$t = strtok($matn, " ");
while($t)
{
echo ($t);
echo (" ");
$t = strtok("$b");
}
?>
<form action="8.20-masala.php"
method="post">
<p> Matn kiriting<input name="x"
type="text"></p>
<p> Harf kiriting<input name="y"
type="text"></p>
<p><input type="submit"
value="Hisoblash"></p>
</form>
```



6.5. MUSTAQIL BAJARISH UCHUN TOPSHIRIQLAR

8.1-masala. Matndagi bir xil so‘zlar va ularning sonini aniqlovchi dastur tuzing.
8.2-masala. Berilgan matndagi YA va E harflar hamda bo‘sh joylar sonini aniqlang.
8.3-masala. ASC II jadvalidan katta lotin harflarni chiqaring..
8.4-masala. Matnda izlanayotgan xarf(belgi) necha marta uchrashini aniqlaydigan dastur tuzing.
8.5-masala. Berilgan matndagi hamma R harflarni olib tashlang.
8.6-masala. Matndagi eng qisqa so‘zni va uning o‘rnini aniqlovchi dastur tuzing.
8.7-masala. Berilgan matndagi E harflarni Y harflarga almashtiring.
8.8-masala. Berilgan matnni teskarisiga satrlab ekranga chiqaring**.**
8.9-masala. PHP tilidagi berilgan operatorlarning inglizcha - o‘zbekcha lug‘atini tuzing. Bunda inglizcha so‘z kiritilganda uning tarjimasi natija sifatida olinishini ta’minlang.
8.10-masala. Berilgan matnda faqat bir marta uchraydigan belgilarni (matnda qanday uchrasa, shu tartibda) ajrating**.**
8.11-masala. Matndagi i – so‘zni j – so‘z bilan almashtirish dasturini tuzing.
8.12-masala. Berilgan matnning o’ng tomonidan N ta belgilarni ajrating.
8.13-masala. Matndagi 2, 5, 6, 8 raqamlari qatnashgan so‘zlardan yangi matn xosil qilish dasturini va eng uzun so‘zni aniqlash dasturini tuzing**.**
8.14-masala. Topishmoq topish va uning javobini tahlil qilish dasturini tuzing**.**
8.15-masala. Berilgan so‘zlarni alfavit bo‘yicha tartiblash dasturini tuzing.
8.16-masala. Matn ikkita gapdan iborat. Matndagi gaplarni o‘rnini almashtiring.
8.17-masala. Berilgan natural sonning xona birliklarini ajratib yozing.
8.18-masala. Matndagi so‘z kurinishidagi sonni 1<N<99 suz bilan yozish dasturini tuzing.
8.19-masala. Matndagi necha foyz so‘z A va D xarflaridan boshlanadi (so‘zlar probellar bilan ajratilgan).
8.20-masala. Tushirib qoldirilgan harf o‘rniga H yoki X harflarni yozishni o‘rgatuvchi dastur tuzing.

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PHP7 DASTURLASH TILI

Termiz-“Xamidi xususiy firmasi”-2020

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