



Samarqand davlat universitetning Kattaqo'rg'on filiali Aniq va tabiiy fanlar fakulteti Matematika ta'lim yo'nalishi
4-kurs talabalariga « Hisoblash usullari » fanidan yakuniy nazorat savollari

Imtihon shakli: amaliy

Savolning tartib raqami	Savolning qiyinlik darajasi	Savolning qanday mashg'ulotga tegishliligi	Mavzu nomeri	Savol matni
1.	2	A	1	2,3544 sonni $\delta = 0,2\%$ nisbiy xatolik bilan yaxlitlang
2.	2	A	1	Taqribiy qiymati $a = 0,67$ bo'lgan $A = 2/3$ soni nisbiy xatoligining chegarasini toping.
3.	2	A	1	Hisoblashlar natijalariga ko'ra $a = 2520$ va $b = 2518$ sonlar olindi. Bu sonlar ayirmasining xatoliklarini tahlil qiling
4.	1	A	1	Hisoblashlar natijalariga ko'ra $a = 2520$ va $b = 2518$ sonlar olindi. Bu sonlar ayirmasining xatoliklarini tahlil qiling
5.	1	A	1	Ushbu $y = b\sqrt{a}$; funksiyaning berilgan $A = 4 \pm 0,01$; $B = 7 \pm 0,04$ qiymatlardagi chegaraviy absolyut xatoligini toping
6.	1	A	1	Ushbu $y = \frac{a-b}{c}$ funksiyaning berilgan $A = 4 \pm 0,01$; $B = 7 \pm 0,04$; $C = 5 \pm 0,1$ qiymatlardagi absolyut va nisbiy xatoliklarini toping
7.	1	A	2	Ushbu $y = \frac{a}{a-b}$ funksiylarning berilgan $A = 4 \pm 0,01$; $B = 7 \pm 0,04$ qiymatlardagi chegaraviy nisbiy xatoliklarini toping
8.	1	A	2	Ushbu $y = \frac{a}{\sqrt{b}}$ funksiylarning berilgan $A = 4 \pm 0,01$; $B = 7 \pm 0,04$ qiymatlardagi chegaraviy nisbiy xatoliklarini toping

9.	1	A	2	Quyida berilgan ifodaning qiymatini berilgan miqdorlarda hisoblang va hisoblash xatoligini aniqlang. $N = \frac{(n-1)(m+n)}{(m-n)^2}, \quad n = 3,0567 \pm 0,0001, \quad m = 5,72 \pm 0,02.$
10.	3	A	2	Faraz qilaylik, sharning radiusi taxminan 1 ga teng. Sharning hajmini 0,1 aniqlik bilan hisoblash uchun uning radiusini va π sonni qanday aniqlik bilan hisoblash lozim?
11.	1	A	2	Millimetrlarga bo'lingan lineyka yordamida qalamning uzunligi o'lchandi. O'lchash 17.9 sm ni ko'rsatdi. Bu o'lchashning chegaraviy misbiy xatoligini ko'rsating.
12.	2	A	2	Silindrik porshen 35 mm atrofidagi diametrga ega. Mikrometr yordamida o'lchashning chegaraviy nisbiy xatoligi 0,05% bo'lishi uchun uni qanday aniqlikda o'lchash lozim?
13.	3	A	2	A4 formatdagi qog'ozning uzunligi $(29,7 \pm 0,1)$ sm. Xorazmdan Toshkentgacha bo'lgan masofa (1100 ± 1) km. Birinchi holda absolyut xatolik 1 mm dan, ikkinchi holda esa 1 km dan oshmaydi. Bu o'lchashlarning aniqligini taqqoslang
14.	1	A	2	Ikkita har xil yuklarning og'irliklarini o'lchashda quyidagi qiymatlar olindi: $x = 357,456$ tonna va $\Delta(x) = 24,726$ tonna; $y = 28,7673$ tonna va $\Delta(y) = 2,4652$ tonna. Qaysi yuk aniqroq o'lchanganligini toping
15.	1	A	2	Hisoblashlar jarayonida biror miqdorlarning quyidagi taqribiy qiymatlari olingan: $a = 5,256$; $b = 2,892$. Agar ularning chin qiymatlari $A = 5,158$ va $B = 2,814$ bo'lsa, u holda bu natijalardan qaysi biri aniqroq ekanligini aniqlang
16.	1	A	2	Quyidagi tengliklardan qaysi biri aniqroq ekanligini aniqlang: $a = 9/11 = 0,818$; $b = \sqrt{18} = 4,24$.
17.	2	A	3	$f=e^x-10x-2$ tenglamaning $\varepsilon=0.01$ aniqlikdagi taqribiy ildizini $[-1;0]$da Vatarlar usuli orqali topilsin.

18.	2	A	3	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 1,4x_1 + 0,3x_2 - 0,4x_3 + 0,9x_4 &= 1,3, \\ 0,6x_1 - 0,4x_2 + 1,3x_3 - 0,6x_4 &= -0,4, \\ 0,8x_1 - 2,2x_2 - 0,5x_3 + 0,5x_4 &= 0,6, \\ 0,3x_1 + 1,4x_2 + 0,6x_3 - 1,3x_4 &= 0,9. \end{aligned} \right\}$ determinantni hisoblang:
19.	1	A	3	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 7,5x_1 - 2,4x_2 + 4,1x_3 + 1,2x_4 &= 9,9, \\ 7,1x_1 + 2,7x_2 - 1,4x_3 + 1,4x_4 &= 6,9, \\ -1,8x_1 - x_2 + 4,3x_3 + 1,3x_4 &= 7,9, \\ 1,5x_1 - 3,4x_2 + 7,8x_3 - 1,8x_4 &= 15,1. \end{aligned} \right\}$ determinantni hisoblang:
20.	1	A	4	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} -3,1x_1 + 2x_2 - 4x_3 + 5x_4 &= 4,9, \\ 2x_1 - x_2 + x_3 + 1,2x_4 &= -9,7, \\ x_1 - 3x_2 - 2x_3 + 2,7x_4 &= 13,1, \\ 5x_1 - x_2 + 3x_3 + 7,8x_4 &= 10,6. \end{aligned} \right\}$ determinantni hisoblang:
21.	2	A	4	4Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 2,6x_1 - 3,1x_2 + 3,4x_3 + 2,5x_4 &= 3,5, \\ 6,6x_1 + 9,9x_2 - 2,3x_3 - 0,1x_4 &= -4,3, \\ 10,1x_1 + 3,2x_2 - 3,7x_3 - 2,8x_4 &= 3,8, \\ 8,9x_1 + 6,4x_2 + 1,1x_3 + 3,9x_4 &= -7,8. \end{aligned} \right\}$ determinantni hisoblang:
22.	1	A	4	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 3,5x_1 + 0,2x_2 + 3,8x_3 - 0,3x_4 &= 0,8, \\ 4,5x_1 + 2,1x_2 - 0,1x_3 - 0,2x_4 &= 1,1, \\ -2,1x_1 + 3,2x_2 + 0,2x_3 - 0,2x_4 &= 0,2, \\ 3,2x_1 + 1,8x_2 - 3,2x_3 + 0,2x_4 &= 0,1.. \end{aligned} \right\}$ determinantni hisoblang:

23.	1	A	5	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 1,1x_1 + 2,3x_2 + 5,5x_3 + 2,3x_4 &= 7,9, \\ 3,3x_1 + 1,3x_2 + 1,8x_3 + 3,1x_4 &= 2,6, \\ 2,6x_1 + 4,3x_2 + 1,1x_3 + 1,7x_4 &= 10,6, \\ 1,1x_1 + 3,8x_2 + 2,9x_3 + 2,7x_4 &= 9,3. \end{aligned} \right\}$ determinantni hisoblang:
24.	2	A	5	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 1,3x_1 + 3,2x_2 + 2,1x_3 + 3,3x_4 &= 1,9, \\ 3,5x_1 - 4,1x_2 - 5,3x_3 - 2,5x_4 &= -4,7, \\ 2,8x_1 + 3,5x_2 - 7,6x_3 - 4,9x_4 &= -6,7, \\ 1,4x_1 + 2,8x_2 + 3,9x_3 - 1,8x_4 &= -4,8. \end{aligned} \right\}$ determinantni hisoblang:
25.	3	A	5	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 0,2x_1 + 0,8x_2 - 0,1x_3 + 0,2x_4 &= 0,1, \\ 0,8x_1 + 1,1x_2 + 0,1x_3 + 1,1x_4 &= 2,3, \\ -0,3x_1 + 0,1x_2 + 3,0x_3 - 2,0x_4 &= 0,1, \\ 0,1x_1 + 1,1x_2 + 1,1x_3 - 1,3x_4 &= 0,2. \end{aligned} \right\}$ determinantni hisoblang:
26.	1	A	5	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 1,1x_1 + 1,3x_2 - 6,3x_3 - 4,5x_4 &= 6,3, \\ 3,9x_1 - 0,7x_2 - 6,8x_3 - 4,7x_4 &= 2,7, \\ 2,8x_1 + 3,3x_2 + 9,1x_3 + 2,8x_4 &= 6,9, \\ 3,1x_1 + 2,7x_2 + 3,4x_3 - 8,1x_4 &= -7,1. \end{aligned} \right\}$ determinantni hisoblang:
27.	3	A		Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 1,1x_1 + 2,3x_2 + 3,4x_3 - 2,0x_4 &= 6,5, \\ 2,8x_1 - 1,2x_2 - 2,3x_3 - 3,9x_4 &= 8,8, \\ 3,9x_1 + 2,8x_2 - 1,3x_3 + 2,8x_4 &= 4,1, \\ 2,7x_1 - 3,6x_2 + 2,6x_3 + 1,7x_4 &= -8,7. \end{aligned} \right\}$ determinantni hisoblang:

28.	1	A	6	Quyida berilgan rasional koeffitsiyentli tenglamalar sistemasini Gauss usulida yeching, sistema koeffitsiyentlaridan tuzilgan $\left. \begin{aligned} 6,1x_1 - x_2 - x_3 + 1,5x_4 &= 7,6, \\ -x_1 + 6,3x_2 - x_3 + 5,7x_4 &= 3,9, \\ -x_1 - x_2 + 6,7x_3 + 3,4x_4 &= 4,6, \\ 2,2x_1 - x_2 + 3,1x_3 - 1,4x_4 &= 7,2. \end{aligned} \right\}$ determinantni hisoblang:
29.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=x/(x+y)$, $y(0)=1$, $[0,1]$
30.	1	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'-2y=3e^x$, $y(0,3)=1,415$, $[0,1;0,5]$
31.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=x+y^2$, $y(0)=0$, $[0;0,3]$
32.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=y^2-x^2$, $y(1)=1$, $[1;2]$
33.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=x^2+y^2$, $y(0)=0.27$, $[0;1]$
34.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=x^2-xy+y^2$, $y(0)=0.1$, $[0;1]$
35.	2	A	7	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=(2y-x)/y$, $y(1)=2$, $[1;2]$

36.	2	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'=x^2+xy+y^2+1, \quad y(0)=0, \quad [0;1]$
37.	2	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Eyler usuli orqali taqribiy yechimini toping: $y'+y=x^3, y(1)=-1, \quad [1;2]$
38.	1	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=x/(x+y), \quad y(0)=1, \quad [0,1]$
39.	1	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'-2y=3e^x, \quad y(0,3)=1,415, \quad [0,1;0,5]$
40.	2	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=x+y^2, \quad y(0)=0, \quad [0;0,3]$
41.	3	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=y^2-x^2, \quad y(1)=1, \quad [1;2]$
42.	3	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=x^2+y^2, \quad y(0)=0.27, \quad [0;1]$
43.	1	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=x^2-xy+y^2, y(0)=0.1, \quad [0;1]$

44.	2	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=(2y-x)/y$, $y(1)=2$, [1;2]
45.	2	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'=x^2+xy+y^2+1$, $y(0)=0$, [0;1]
46.	1	A	8	Quyidagi birinchi tartibli differensial tenglamalar uchun Koshi masalasini $h=0,1$ bo'lganda Runge-Kutta usuli orqali taqribiy yechimini toping: $y'+y=x^3$, $y(1)=-1$, [1;2]
47.	2	A	9	Oddiy iteratsiya usuli bilan quyidagi chiziqli tenglamalar sistemasini $\varepsilon=10^{-3}$ aniqlikda yeching: $\left. \begin{aligned} 20.91x_1 + 1.2x_2 + 2.1x_3 + 0.9x_4 &= 21.70 \\ 1.2x_1 + 21.2x_2 + 1.5x_3 + 2.5x_4 &= 27.46 \\ 2.1x_1 + 1.5x_2 + 19.8x_3 + 1.3x_4 &= 28.76 \\ 0.9x_1 + 2.5x_2 + 1.3x_3 + 32.1x_4 &= 49.72 \end{aligned} \right\}$
48.	1	A	9	Oddiy iteratsiya usuli bilan quyidagi chiziqli tenglamalar sistemasini $\varepsilon=10^{-3}$ aniqlikda yeching: $\left. \begin{aligned} 1.02x_1 - 0.05x_2 - 0.10x_3 &= -0.795 \\ -0.11x_1 + 0.97x_2 - 0.05x_3 &= 0.849 \\ -0.11x_1 - 0.12x_2 + 1.04x_3 &= 1.398 \end{aligned} \right\}$
49.	3	A	9	Oddiy iteratsiya usuli bilan quyidagi chiziqli tenglamalar sistemasini $\varepsilon=10^{-3}$ aniqlikda yeching: $\left\{ \begin{aligned} x_1 &= 0,32x_1 - 0,18x_2 + 0,02x_3 + 0,21x_4 + 1,83; \\ x_2 &= 0,16x_1 + 0,12x_2 - 0,14x_3 + 0,27x_4 - 0,65; \\ x_3 &= 0,37x_1 + 0,27x_2 - 0,02x_3 - 0,24x_4 + 2,23; \\ x_4 &= 0,12x_1 + 0,21x_2 - 0,18x_3 + 0,25x_4 - 1,13. \end{aligned} \right.$

50.	2	A	9	Oddiy iteratsiya usuli bilan quyidagi chiziqli tenglamalar sistemasini $\epsilon=10^{-3}$ aniqlikda yeching: $\begin{cases} x_1 = 0,18x_1 - 0,34x_2 - 0,12x_3 + 0,15x_4 - 1,33; \\ x_2 = 0,11x_1 + 0,23x_2 - 0,15x_3 + 0,32 + 0,84; \\ x_3 = 0,05x_1 - 0,12x_2 + 0,14x_3 - 0,18x_4 - 1,16; \\ x_4 = 0,12x_1 + 0,08x_2 + 0,06x_3 + 0,57. \end{cases}$
51.	2	A	9	Oddiy iteratsiya usuli bilan quyidagi chiziqli tenglamalar sistemasini $\epsilon=10^{-3}$ aniqlikda yeching: $\begin{cases} x_1 = 0,13x_1 + 0,23x_2 - 0,44x_3 - 0,05x_4 + 2,13; \\ x_2 = 0,24x_1 - 0,31x_2 + 0,15x_3 - 0,18; \\ x_3 = 0,06x_1 + 0,15x_2 - 0,23x_3 + 1,44; \\ x_4 = 0,72x_1 - 0,08x_2 - 0,05x_3 + 2,42. \end{cases}$
52.	3	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat $\begin{cases} x^2 + y^2 + z^2 = 1 \\ 2x^2 + y^2 - 4z = 0 \\ 3x^2 - 4y + z^2 = 0 \end{cases}$ qimatlarini Nyuton usulida toping:
53.	3	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat $\begin{cases} 0.6x^2 + 2y^2 = 1 \\ x^2 - 0.8y = 0 \end{cases}$ qimatlarini Nyuton usulida toping:
54.	3	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat $\begin{cases} x^2 + y^2 = 1 \\ y^2 - 0.5x = 0 \end{cases}$ qimatlarini Nyuton usulida toping:
55.	3	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat $\begin{cases} x^2 + 2y^2 = 1 \\ 0.6x^2 + y = 0 \end{cases}$ qimatlarini Nyuton usulida toping:
56.	2	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat $\begin{cases} 0.7x^2 + 2y^2 = 1 \\ xy = 0.6 \end{cases}$ qimatlarini Nyuton usulida toping:

57.	2	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat qimatlarini Nyuton usulida toping: $\begin{cases} x^2 + y^2 = 3 \\ xy = 0.8 \end{cases}$
58.	1	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat qimatlarini Nyuton usulida toping: $\begin{cases} x^2 + 0.2y^2 = 3 \\ y^2 = x^3 \end{cases}$
59.	1	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat qimatlarini Nyuton usulida toping: $\begin{cases} x^2 + y^2 = 1 \\ x^2 - 0.8y^2 = 1 \end{cases}$
60.	2	A	10	Quyidagi chiziqsiz tenglamalar sistemasi yechimining musbat qimatlarini Nyuton usulida toping: $\begin{cases} x^2 - y^2 = 1 \\ 0.8x^2 + 2y^2 = 1 \end{cases}$
61.	2	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_1^{3.5} \frac{\ln x}{x\sqrt{1+\ln x}} dx$
62.	1	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} (tg^2 x + ctg^2 x) dx$
63.	3	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_1^4 \frac{1}{x} \ln^2 x dx$
64.	3	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_2^3 \frac{1}{x \lg x} dx$
65.	2	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_0^1 x e^x \sin x dx$
66.	1	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_0^2 \frac{1}{\sqrt{9+x^3}} dx$

67.	2	A	11	Quyidagi integralni to'rtburchak usulida taqribiy hisoblang: $\int_1^2 \frac{1}{x} \sqrt{x^2 + 0.16} dx$
68.	1	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_1^{3.5} \frac{\ln x}{x\sqrt{1+\ln x}} dx$
69.	3	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} (tg^2 x + ctg^2 x) dx$
70.	2	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_1^4 \frac{1}{x} \ln^2 x dx$
71.	3	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_2^3 \frac{1}{x \lg x} dx$
72.	3	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_0^1 x e^x \sin x dx$
73.	3	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_0^2 \frac{1}{\sqrt{9+x^3}} dx$
74.	3	A	11	Quyidagi integralni trapetsiya usulida taqribiy hisoblang: $\int_1^2 \frac{1}{x} \sqrt{x^2 + 0.16} dx$
75.	2	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_1^{3.5} \frac{\ln x}{x\sqrt{1+\ln x}} dx$
76.	2	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_{\frac{\pi}{6}}^{\frac{\pi}{3}} (tg^2 x + ctg^2 x) dx$
77.	1	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_1^4 \frac{1}{x} \ln^2 x dx$
78.	1	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_2^3 \frac{1}{x \lg x} dx$
79.	2	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_0^1 x e^x \sin x dx$
80.	1	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_0^2 \frac{1}{\sqrt{9+x^3}} dx$

81.	3	A	11	Quyidagi integralni Simpson usulida taqribiy hisoblang: $\int_1^2 \frac{1}{x} \sqrt{x^2 + 0.16} dx$
82.	3	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + \frac{y'}{x} + 2y = x$,
83.	3	A	12	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' - xy' + 2y = x + 1$
84.	2	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + xy' + y = x + 1$
85.	2	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + 2y' - \frac{y}{3} = 3$
86.	3	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + 2y' - xy = x^2$
87.	3	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' - y' + \frac{2y}{x} = x + 0,4$
88.	3	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' - 3y' + \frac{y}{x} = 1$
89.	2	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + 3y - \frac{y}{x} = x + 1$
90.	2	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' - \frac{y'}{2} + 3y = 2x^2$
91.	1	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + 1,5y' - xy = 0,5$
92.	1	A	12	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + 2xy' - y = 0,4$
93.	2	A	13	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' - 0,5xy' + y = 2$

94.	3	A	13	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + \frac{2y'}{x} - 3y = 2$
95.	2	A	13	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' + \frac{y'}{x} + 2y = x$
96.	1	A	13	Quyidagi ikkinchi tartibli differensial tenglamaning to'rtinchi tanlab chekli-ayirmali ko'rinishini hosil qiling: $y'' - xy' + 2y = x + 1$
97.	3	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + xy' + y = x + 1,$ $\begin{cases} y(0,5) + 2y'(0,5) = 1, \\ y'(0,8) = 1, 2. \end{cases}$
98.	3	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 2y' - \frac{y}{3} = 3,$ $\begin{cases} y(0,2) = 2, \\ 0,5y(0,5) - y(0,5) = 1. \end{cases}$
99.	3	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 2y' - xy = x^2,$ $\begin{cases} y'(0,6) = 0,7, \\ y(0,9) - 0,5y'(0,9) = 1. \end{cases}$
100.	2	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' - y' + \frac{2y}{x} = x + 0,4,$ $\begin{cases} y(1,1) - 0,5y'(1,1) = 2, \\ y'(1,4) = 4. \end{cases}$
101.	2	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping:

				$y'' - 3y' + \frac{y}{x} = 1,$ $\begin{cases} y(0,4)=2, \\ y(0,7)+2y'(0,7)=0,7. \end{cases}$
102.	3	A	14	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 3y - \frac{y}{x} = x + 1,$ $\begin{cases} y'(1,2)=1, \\ 2y(1,5) - y'(1,5) = 0,5. \end{cases}$
103.	3	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' - \frac{y'}{2} + 3y = 2x^2,$ $\begin{cases} y(1) + 2y'(1) = 0,6, \\ y(1,3) = 1. \end{cases}$
104.	3	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 1,5y' - xy = 0,5,$ $\begin{cases} 2y(1,3) - y'(1,3) = 1, \\ y(1,6) = 3. \end{cases}$
105.	3	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 2xy' - y = 0,4,$ $\begin{cases} 2y(0,3) + y'(0,3) = 1, \\ y'(0,6) = 2. \end{cases}$
106.	2	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' - 0,5xy' + y = 2,$ $\begin{cases} y(0,4) = 1,2, \\ y(0,7) + 2y'(0,7) = 1,4. \end{cases}$
107.	2	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping:

				$y'' + \frac{2y'}{x} - 3y = 2,$ $\begin{cases} y'(0,8) = 1,5, \\ 2y(1,1) + y'(1,1) = 3. \end{cases}$
108.	1	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + \frac{y'}{x} + 2y = x,$ $\begin{cases} y(0,7) = 0,5 \\ 2y(1) + 3y'(1) = 1,2. \end{cases}$
109.	1	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 2xy' - 1,5 = x,$ $\begin{cases} 1,4y(1,1) + 0,5y'(1,1) = 2, \\ y'(1,4) = 2,5. \end{cases}$
110.	3	A	15	Quyidagi ikkinchi tartibli differensial tenglama uchun Koshi masalasining yechimini progonka usulida toping: $y'' + 0,6xy' - 2y = 1,$ $\begin{cases} y(1,5) = 0,6, \\ 2y(1,8) - 0,8y'(1,8) = 3. \end{cases}$