

6-darajali test.№3.

1. Agar x_1 va x_2 lar $9x^2+3x-1=0$ tenglamaning ildizlari bo`lsa, $\frac{3x_1 \cdot x_2}{x_1 + x_2} = ?$
2. b ning qanday qiymatida $\frac{7b^3}{b^3+1}$ kasrning qiymati $\frac{56}{9}$ ga teng bo`ladi?
3. Ushbu $10(ax-1)=2a-5x-9$ tenglama a ning qanday qiymatlarida yagona yechimga ega?
4. $(81-x^2)\sqrt{x+4} = 0$ tenglamaning ildizlari yig`indisini toping.
5.
$$\begin{cases} \frac{1}{x} + \frac{3}{y} = \frac{5}{2} \\ xy = 3 \end{cases}; \quad x=?$$
6. Tenglamalar sistemasini yeching.
$$\begin{cases} x+2=0 \\ xy^2=-8 \end{cases}$$
7.
$$\begin{cases} xy+x+y=11 \\ x^2y+xy^2=30 \end{cases}$$
 $x+y$ ning eng katta qiymatini toping.
8. k ning qanday qiymatlarida
$$\begin{cases} (k^2+k+1)x+3y-6=0 \\ x+y+k=0 \end{cases}$$
 sistema birorta yechimga ega bo`lmaydi?
9. $f(x) = \frac{\sqrt{8+x}}{x+2}$ funksiyaning aniqlanish sohasini toping.
10. Nechta tub son $2 < \frac{3x+13}{2x+1} < 4$ tengsizlikning yechimi bo`ladi?
11. Funksiyaning aniqlanish sohasini toping. $y = \sqrt{\frac{x^2-4x+4}{1-x^2}}$
12. Agar $m>3$, $n>5$, $k<6$ bo`lsa, $3m+5n-2k$ ning eng kichik butun qiymatini toping.
13. $3 \leq x \leq 6$ va $15 \leq y \leq 60$ bo`lsa, $\frac{y}{x}$ ning qiymati qaysi kesmaga tegishli?
14. Sonlarni kamayish tartibida yozing. $m=|4,8|$, $n=|-4,(8)|$, $p=|4\frac{3}{5}|$, $q=|-3,2|$
15. Tenglamaning ildizlari yig`indisini toping. $|x| = x^2 - x - 4$
16. Tengsizlikning butun yechimlari nechta? $2|x+3| \leq |x-1|$
17. Agar
$$\begin{cases} (x-2)^2 + |y| = 4 \\ |x-2| + |y| = 2 \end{cases}$$
 bo`lsa, $x+y=?$
18. Ushbu $\frac{x-9}{\sqrt{x+3}} = x-15$ tenglama nechta ildizga ega?
19. $x(x^2+4x+4)\sqrt{25-x^2} \geq 0$ tengsizlikning butun sonlardan iborat yechimlari nechta?

20. Arifmetik progressiya dastlabki n ta hadi yig'indisi $S_n = n^2$ bo'lsa, $a_{10} = ?$
21. Hadlari $X_n = 4n + 8$ formula bilan berilgan ketma-ketlikning dastlabki 30 ta hadi yig'indisini toping.
22. $\frac{1}{x} + 1 + x + x^2 + \dots + x^n + \dots = 4,5$ ($|x| < 1$) tenglamani yeching.
23. Muayyan masofani bosib o'tish uchun ketadigan vaqtni 25% ga kamaytirish uchun tezlikni necha % ga oshirish kerak?
24. Agar $f(x) = \sqrt{x^3 - 1}$ bo'lsa, $f(\sqrt[3]{x^2 + 1}) = ?$
25. $3x + 4y + 7 = 0$ va $3x + y - 5 = 0$ to'g'ri chiziqlarning kesishish nuqtasi kordinata boshidan qanday masofada joylashgan?
26. $y = x^2 + px + q$ parabola $x = 5$ nuqtada Ox o'qqa urinadi. $\frac{q}{p} = ?$
27. $y = \frac{x}{|x|}$ funksiyaning grafigi kordinatalar teksligining qaysi choraklarida joylashgan?
28. $y = \frac{3}{2-x} - 1$ funksiyaga teskari funksiyani toping.
29. ABC to'g'ri burchakli uchburchakda gipotenuzaga CD balandlik o'tkazilgan. Agar $\angle B = 60^\circ$ va $BD = 2$ bo'lsa, gipotenuzani toping.
30. Uchburchakning tomonlari 2, 3, 4 ga teng. 3 ga teng tomon qarshisidagi burchak sinusini toping.
31. Uchburchakning tomonlari 4, 5, 6 sm. 4 sm li tomonning 6 sm li tomondagi proeksiyasini toping.
32. Uchburchakning tomonlari 5, 7, 10 ga teng. Katta burchakning bissektrisasi bissektrisalarning kesishgan nuqtasi orqali uchburchakning uchidan boshlab hisoblaganda qanday nisbatda bo'linadi?
33. Uchburchakning medianalar kvadratlarining yig'indisini tomonlari kvadratlari yig'indisiga nisbatini toping.
34. Gipotenuzasi c ga va o'tkir burchaklari sinuslarining yig'indisi q ga teng bo'lgan to'g'ri burchakli uchburchakning yuzini toping.
35. Yuzlari 8 va 32 bo'lgan 2 ta o'xshash uchburchak perimetrlarining yig'indisi 57 ga teng. Kichik uchburchak perimetrini toping.
36. Uchburchakning asosiga parallel to'g'ri chiziq uning yuzini teng 2 ga bo'lsa, asosidan boshlab hisoblaganda, uning yon tomonlari qanday nisbatda bo'linadi?

O'tkirbek SHERG'OZIYEV

@grand_matematika @grandrm

javoblari

t/r	№3
1	1
2	2
3	$a \neq -1/2$
4	5
5	2; $\frac{1}{2}$
6	$(-2; -2)$ va $(-2; 2)$
7	6
8	1
9	$[-8; -2) \cup (-2; \infty)$
10	4 ta
11	$(-1; 1) \cup \{2\}$
12	23
13	$[2,5; 20]$
14	$n > m > p > q$
15	$\sqrt{5} - 1$
16	6
17	0 yoki 4
18	1
19	8
20	19
21	2100
22	$1/3; 2/3$
23	$100/3$
24	$ x $
25	5
26	-2,5
27	I, III
28	$y = 2 - 3/(x+1)$
29	8
30	$\sqrt{135/16}$
31	$9/4$
32	6:5
33	$3/4$
34	$\frac{1}{4}c^2(q^2 - 1)$
35	19
36	$(\sqrt{2} - 1):1$