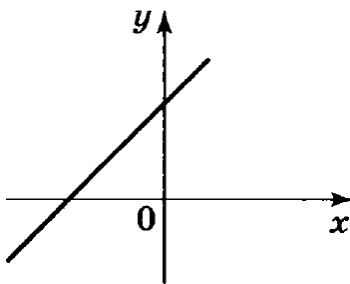


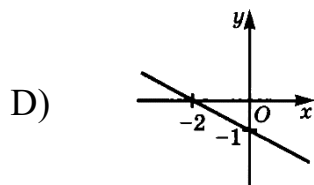
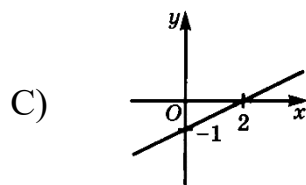
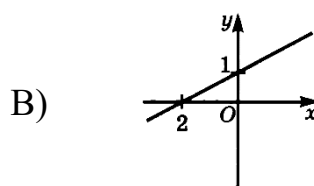
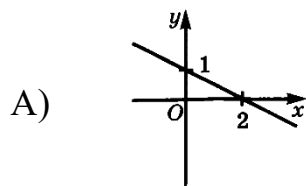
24-Mavzu. Funktsiyalar

1. $f(x) = 3x + 2$ chiziqli funksiya berilgan. $f(2)$ ni toping.
A) 2 B) 4 C) 6 D) 8
2. Chiziqli funksiya berilmagan javobni ko'rsating.
A) $y = 3x$ B) $y = -5$ C) $y = \frac{3-x}{5}$ D) $y = \frac{2}{x}$
3. $f(x) = kx + 2$ funksiya k ning qanday qiymatlarida kamayuvchi bo'ladi?
A) $k > 0$ B) $k < 0$ C) $k \in R$ D) $k \in Z$
4. $f(x) = (k + 2)x + 2$ chiziqli funksiya k ning qanday qiymatlarida o'suvchi bo'ladi?
A) $k < -2$ B) $k < 0$ C) $k > -2$ D) $k \in R$
5. Agar $(4;5)$ nuqta $y = kx + 3$ funksiya grafigiga tegishli bo'lsa, k ni toping.
A) 0,5 B) -0,5 C) 2 D) 1
6. $y = kx + b$ to'g'ri chiziq $(4;3)$ hamda $(-2;4)$ nuqtalardan o'tsa, $k + b = ?$
A) 3 B) 3,5 C) 4,5 D) 5
7. Grafik ko'rinishda berilgan chiziqli funksiyaning analitik ko'rinishi qaysi javobda berilgan?



- A) $y = x + 1$ B) $y = -x + 1$ C) $y = x - 1$ D) $y = -x - 1$
8. Berilgan nuqtalardan qaysi biri $y = 3x + 1$ funksiya grafigiga tegishli?
A) $(1; 5)$ B) $(-1; 5)$ C) $(-2; -5)$ D) $(2; -5)$

9. Ushbu $y = -\frac{1}{2}x + 1$ funksiya grafigi berilgan javobni toping.



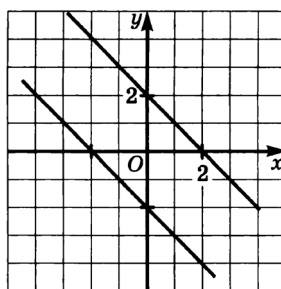
10. Grafigi ushbu $y = 35x - 42$ funksiya grafigiga parallel funksiya berilgan javobni toping.

- A) $y = -35x + 42$ B) $y = 35x + 3$ C) $y = 5x - 6$ D) $y = x - 42$

11. $y = 3x - 5$ to‘g‘ri chiziqqa parallel va $(4,5; 4,5)$ nuqtadan o‘tuvchi to‘g‘ri chiziq tenglamasini tuzing.

- A) $y = 3x - 10$ B) $y = 3x - 9$ C) $y = 3x - 8$ D) $y = 3x - 7$

12. Rasmda qaysi ikkita chizikli funksiyalarning grafigi tasvirlangan?



- A) $y = x + 2$ va $y = x - 2$ B) $y = x + 2$ va $y = -x - 2$
 C) $y = -x + 2$ va $y = -x - 2$ D) $y = -x + 2$ va $y = x + 2$

13. O‘zaro parallel to‘g‘ri chiziqlar berilgan javobni toping.

- A) $y = -\frac{1}{2}x - 1$ va $y = -0,5x + 9$ B) $y = -3x + 7$ va $y = 3x + 7$
 C) $y = \frac{5}{6}x - 3$ va $y = \frac{6}{5}x + 1$ D) $y = 4x + 13$ va $y = -0,25x + 7$

14. O‘zaro perpendikulyar to‘g‘ri chiziqlar berilgan javobni toping.

- A) $y = -\frac{1}{2}x - 1$ va $y = -0,5x + 9$ B) $y = -3x + 7$ va $y = 3x + 7$
 C) $y = \frac{5}{6}x - 3$ va $y = \frac{6}{5}x + 1$ D) $y = 4x + 13$ va $y = -0,25x + 7$

15. Ox o‘qini $(2;0)$ nuqtada, Oy o‘qini $(0; -6)$ nuqtada kesib o‘tuvchi to‘g‘ri chiziqqa perpendikulyar bo‘lgan va koordinatalar boshidan o‘tuvchi to‘g‘ri chiziqning tenglamasini tuzing.

- A) $x + 3y = 0$ B) $3x + y = 0$ C) $x - 3y = 0$ D) $x + 3y - 1 = 0$

16. $y = (2a - 1)x + 3$ va $y = (3a + 1)x + 5$ funksiyalarning grafiklari o‘zaro perpendikulyar bo‘ladigan a ning barcha qiymatlarini toping.

- A) 0 B) $1/6$ C) $0; 1/6$ D) $0; -1/6$

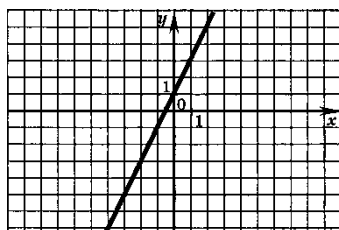
17. $y = 2017x + 2013$ funksiya grafigi qaysi choraklardan o‘tadi?

- A) I,II,IV B) I,II,III C) II,III,IV D) I,III,IV

18. Agar $k < 0, b > 0$ bo‘lsa, $y = kx + b$ funksiya grafigi qaysi choraklarda yotadi?

- A) I, II va III B) I, II va IV C) II, III a IV D) I, III va IV

19. Qaysi funksiyaning grafigi tasvirlangan?



- A) $x - 2y + 2 = 0$ B) $y = 1 - x$ C) $2x - y + 1 = 0$ D) $2x + y - 1 = 0$

20. $3x + 4y - 3 = 0$ to‘g‘ri chiziqning koordinata o‘qlari bilan kesishish nuqtalari koordinatalarini toping.

- A) $(1; 0), (0; \frac{3}{4})$ B) $(-1; 0), (0; \frac{1}{2})$ C) $(-2; 0), (0; -\frac{3}{4})$ D) $(-\frac{1}{2}; 0), (0; 1)$

21. Koordinata o‘qlari va $5y - 2x - 10 = 0$ to‘g‘ri chiziq bilan chegaralangan uchburchak yuzini hisoblang.

- A) 3; B) 7; C) 5; D) 6.

22. To‘g‘ri chiziq $A(0; -1), B(-1; 4)$ nuqtalardan o‘tadi. Shu to‘g‘ri chiziq tenglamasini yozing.

- A) $y = -5x - 1$; B) $y = 5x + 1$; C) $y = x - 1$; D) $y = 2x + 6$.

23. $M(2;3)$ va $N(-3;-1)$ nuqtalar berilgan. MN kesmaning ordinata o‘qi bilan kesishgan nuqtasining koordinatalarini toping.

- A) $(0; -1,4)$ B) $(0; 1,4)$ C) $(1,4; 0)$ D) $(-1,75; 0)$

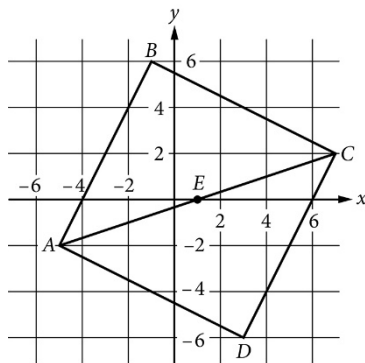
24. $A(-2;3)$ nuqtaga OX o‘qqa nisbatan simmetrik nuqtaning koordinatalarini toping.

- A) $(2;3)$ B) $(2;-3)$ C) $(-2;-3)$ D) $(-2;3)$

25. $y = 3x - 7$ to‘g‘ri chiziqqa OY o‘qqa nisbatan simmetrik bo‘lgan to‘g‘ri chiziq tenglamasini tuzing.

- A) $3x - y - 7 = 0$ B) $-3x - y - 7 = 0$ C) $-3x - y + 7 = 0$ D) $3x - y + 7 = 0$

26. Dekart koordinatalar sistemasida ABCD kvadrat berilgan. B va D nuqtalardan o‘tuvchi to‘g‘ri chiziq tenglamasini tuzing.

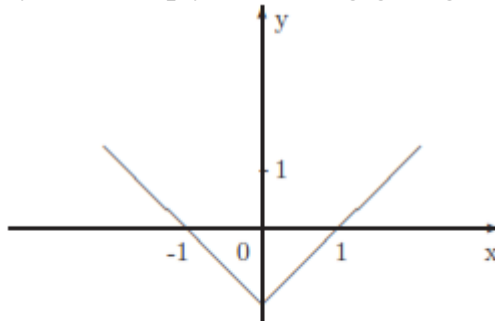


- A) $f(x) = -3x + 3$ B) $f(x) = -3x - 1$
 C) $f(x) = -\frac{1}{3}x + 4$ D) $f(x) = -\frac{1}{3}x - 1$

27. $y = -\frac{x+3}{4}$ funksiya $-5 \leq x \leq 4$ bo‘lganda nechta butun qiymatlarni qabul qiladi?

- A) 1 B) 2 C) 0 D) 3

28. Rasmda qiyidagi funksiyalardan qaysi birining grafigi keltirilgan?

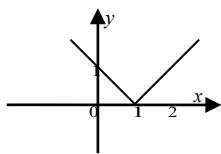


- A) $y = |x - 1|$ B) $y = |x + 1|$ C) $y = |x| - 1$ D) $y = 1 + |x|$

29. Ushbu $f(x) = |x-1| + |x-3|$ funksiyaning eng kichik qiymatini toping.

- A) 0 B) 1 C) 2 D) 3

30. Rasmda qaysi funksiya grafigi ko‘rsatilgan?



A) $y = |x + 1|$ B) $y = |x - 1|$ C) $y = |x| + 1$ D) $y = |x| - 1$

31. Berilgan funksiyalar ichidan juft funksiyalarni ko‘rsating.

1) $y = 3x^2$; 2) $y = |x|$; 3) $y = 7x$; 4) $y = \sqrt{x}$.

A) 1),3) B) 1),2) C) 3),4) D) 1),4).

32. Berilgan funksiyalar ichidan toq funksiyalarni ko‘rsating.

1) $y = 3x^2$; 2) $y = \frac{4}{x}$; 3) $y = -7x$; 4) $y = |x|$;

A) 1),3) B) 2),3) C) 2),4) D) 3),4)

33. Quyidagi funksiyalardan qaysi biri juft?

A) $\frac{x-2}{x^2-4}$ B) $\frac{x^3}{|x|+x^2}$ C) $\frac{|x|-4}{|x|+2}$ D) $(x+3)^2$

34. Qaysi javobda toq funksiya ko‘rsatilgan?

1) $g(x) = |1 + x| + |1 - x|$; 2) $g(x) = |1 + x| - |1 - x|$;

3) $g(x) = x(|1 + x| - |1 - x|)$; 4) $g(x) = |x|(|1 + x| - |1 - x|)$;

A) 2,4 B) 2,3 C) 1,3 D) 1,4

35. Funksiyalarning qaysilari juft funksiya?

1) $y = (x + 1)^4 + 3(x + 1)^2 - 6$ 2) $y = \frac{|x|}{1+3x^4}$

3) $y = x^2 + x^5$ 4) $y = \sqrt{30 + x + x^2} + \sqrt{30 - x + x^2}$

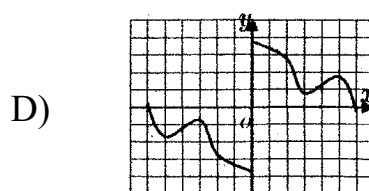
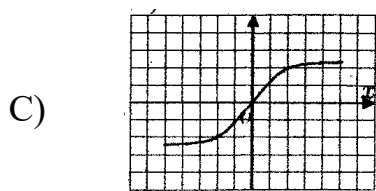
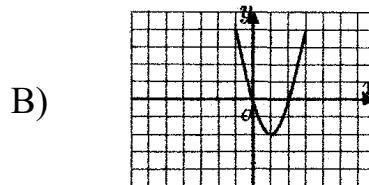
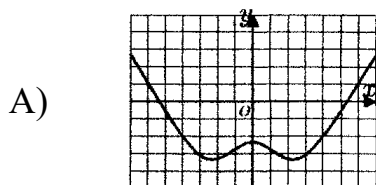
A) 1,2 B) faqat 2 C) 2,4 D) 1,4

36. Funksiyalarning qaysilari toq funksiya?

1) $y = x^{2n+1}$ 2) $y = 1 + 4x^5 + 7x^7$ 3) $y = 3x^6 - 7x^4 + 5x^2 + 9$ 4) $y = x|x|$

A) 1,2,4 B) faqat 1 C) 3,4 D) 1,4

37. Toq ham juft ham bo‘lmagan funksiyani ko‘rsating.



38. $f(x) = |x + 1| + |x + 2| + |x + 3|$ funksiya qiymatlar sohasini toping.

- A) $[3; \infty)$ B) $[2; \infty)$ C) $[1; \infty)$ D) $[0; \infty)$

39. $g(x) = |x - 1| - |x + 2| + |x - 3|$ funksiya qiymatlar sohasini toping.

- A) $[2; \infty)$ B) $[8; \infty)$ C) $[0; \infty)$ D) $[-3; \infty)$

40. $y = \frac{|x^2 - 4x + 3|}{x^2 - 4x + 3} - 2$ funksiya qiymatlar sohasini toping.

- A) $(-3; -1)$ B) $[-3; -1]$ C) $\{-3; -1\}$ D) $(-\infty; -3) \cup (-3; -1) \cup (-1; \infty)$

Kalitlar

1.	D	16.	C	31.	B
2.	D	17.	B	32.	B
3.	B	18.	B	33.	C
4.	C	19.	C	34.	A
5.	A	20.	A	35.	C
6.	D	21.	C	36.	D
7.	A	22.	A	37.	B
8.	C	23.	B	38.	B
9.	A	24.	C	39.	D
10.	B	25.	B	40.	C
11.	B	26.	A		
12.	C	27.	B		
13.	A	28.	C		
14.	D	29.	C		
15.	A	30.	B		