

10-Mavzu. Tenglamalar

1. $3x^4 - 5x^2 + 2 = 0$ tenglamaning eng kichik va eng katta ildizlari ayirmasini toping.

A) 2 B) $\frac{5}{3}$ C) $-\frac{2\sqrt{6}}{3}$ D) -2

2. $x^4 - 74x^2 + 1225 = 0$ tenglamaning ildizlari yig'indisini toping.

A) 12 B) 0 C) 74 D) 1225

3. $x^4 + 21013x^2 - 2015 = 0$ tenglamaning ildizlari yig'indisini toping.

A) -21013 B) $-\sqrt{21013}$ C) $\sqrt{21013}$ D) 0

4. Tenglamaning haqiqiy ildizlari yig'indisini toping: $x^6 + 28x^3 = -27$

A) -5 B) -28 C) 27 D) -4

5. Tenglamani yeching: $\frac{(1+2x)(5x-12,5)}{2x-5} = 0$

A) 0,5;2,5 B) $-0,5;2,5$ C) 2,5 D) $-0,5$

6. $\frac{x^2}{x-1} - \frac{2x}{1-x} = \frac{3}{x-1}$ tenglamaning ildizlari soni nechta?

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

7. $\frac{x^2-x-2}{x^2-1} = x^2 - x - 2$ tenglamaning ildizlari yig'indisini toping.

A) 1 B) -2 C) -4 D) 2

8. $\frac{x^2-x}{x^2-x-1} - 1 = \frac{x^2-x+2}{x^2-x-2}$ tenglama ildizlari yig'indisini toping.

A) 0,5 B) 1 C) 1,5 D) 2

9. Tenglamani yeching: $\frac{x^2-5x-6}{x^2-2x-3} = 0$

A) -1 va 6 B) 6 C) $-1;3$ va 6 D) 3

10. Agar x_1 va x_2 sonlari $3x^2-2x-6=0$ tenglamaning ildizlari. $x_1^2 + x_2^2$ ni hisoblang.

A) $4\frac{2}{9}$ B) $4\frac{4}{9}$ C) 8 D) 6

11. x_1 va x_2 sonlar $3x^2 - 18x - 71 = 0$ tenglamaning ildizlari. $\frac{1}{x_1} + \frac{1}{x_2}$ ni toping.

A) -6 B) $-\frac{18}{71}$ C) $-\frac{71}{3}$ D) 6

12. $2x^2 - 3x - 2$ kvadrat uchhadni ko‘paytuvchilarga ajrating.

A) $(x - 2)(2x + 1)$ B) $(x - 2)(2x - 1)$ C) $(x + 2)(2x + 1)$ D) $(x + 2)(2x - 1)$

13. $5 + \left(x^2 + \frac{1}{x^2}\right) - 4\left(x + \frac{1}{x}\right) = 0$ tenglamaning haqiqiy yechimlari ko‘paytmasini toping.

A) $\frac{3+\sqrt{5}}{2}$ B) 1 C) 0 D) $\frac{3-\sqrt{5}}{2}$

14. Tenglamaning ildizlari ko‘paytmasini toping: $\frac{x^3+4x^2-2x-12}{x^2+3x+2} = 0$

A) 0 B) -6 C) -5 D) -4

15. Tenglamani yeching: $\frac{27x^3+125}{3x+5} = -(5 + 48x)$

A) -2 B) 2 C) $-\frac{5}{3}; 2$ D) $-\frac{5}{3}; -2$

16. $(x^2 + 24x + 24)(24x + 24 + x^2) = 24x^2$ tenglamaning haqiqiy ildizlari yig‘indisini toping.

A) -23 B) -24 C) -25 D) -26

17. $(x^2 + x + 16)(16x + 16 + x^2) = 16x^2$ tenglamaning haqiqiy ildizlari yig‘indisini toping.

A) -19 B) -17 C) 16 D) -18

18. $\frac{32-6x^2+x^3}{x^2-8x+16}$ ni soddalashtiring.

A) $1 - x$ B) $3x - 2$ C) $x + 2$ D) $\frac{x-1}{x+1}$

19. Ushbu $(a^2 - 2a)x = a^2 + a - 6$ tenglama cheksiz ko‘p yechimga ega bo‘ladigan a ning barcha qiymatlarini toping.

A) 2 B) -3 C) 0 D) 6

20. n ning qanday qiymatida $n^2(y-1)=4y-2n$ tenglama cheksiz ko‘p yechimga ega?

A) $n=1$ B) $n=0$ C) $n=-2$ D) $n=2$

21. a ning qanday qiymatlarida $a^2x + 1 = x + a$ tenglama yechimga ega emas?

A) $a = -1$ B) $a = \pm 1$ C) $a = 1$ D) $a = 2$

22. $mx - q = nx + p$ tenglama qachon yechimga ega bo‘lmaydi? $p \neq -q$

A) $m > n$ B) $m = n$ C) $m = n = q = p$ D) $q = p$

23. $x^2 + x + a = 0$ tenglamaning x_1 va x_2 ildizlari orasida $\frac{1}{x_1} + \frac{1}{x_2} = \frac{2}{5}$ munosabat o‘rinli. a ning qiymatini toping.

A) -2 B) $-2,5$ C) $-1,5$ D) -1

24. Ushbu $x^2 - 5x + q = 0$ tenglamaning ildizlaridan biri 2 ga teng. Bu tenglamaning barcha koeffitsiyentlari yig‘indisini toping.

A) 2 B) -6 C) 3 D) 1

25. c ning qanday qiymatida $x^2 + x - c = 0$ tenglama yagona yechimga ega?

A) $-0,25$ B) $0,25$ C) 1 D) -1

26. k ning qanday qiymatida $x^2 + kx - 51 = 0$ tenglamning ildizi 17 bo‘ladi?

A) -20 B) -14 C) 14 D) 20

27. $x^4 - 4x^2 - 5 = 0$ tenglamani yeching.

A) $\pm 1; \pm\sqrt{5}$ B) \emptyset C) ± 2 D) $\pm\sqrt{5}$

28. $4x - 3x^2 + x^3 - 4$ ko‘phadni $x^2 - x + 1$ ko‘phadga bo‘lgandagi qoldiqni toping.

A) $x - 2$ B) $5x$ C) $-5x$ D) $2 - x$

29. a ning qanday qiymatlarida $a^2x^4 - 2x^2 - 2x - 4$ ko‘phad $(x+1)$ ga qoldiqsiz bo‘linadi?

A) ± 3 B) ± 2 C) ± 1 D) 3

30. Agar $\frac{mn}{n^2+12m^2} = \frac{1}{7}$ ekanligi ma`lum bo`lsa, $\frac{3mn}{2n^2-5m^2}$ ni toping.

A) $\frac{4}{9}$ yoki $\frac{9}{13}$ B) $1\frac{5}{12}$ C) $\frac{12}{17}$ yoki $\frac{4}{9}$ D) $\frac{9}{13}$

31. $\frac{a^2-5ab+6b^2}{a^2-2ab-8b^2} : \frac{a^2-2ab-3b^2}{a^2-3ab-4b^2}$ ifodani soddalashtiring.

A) 1 B) $\frac{a-2b}{a+3b}$ C) $\frac{a-2b}{a+2b}$ D) $\frac{a-3b}{a+2b}$

32. $(2x - 1)^4 - 28x^2 + 28x - 7 = 18$ tenglamaning haqiqiy ildizlari ko‘paytmasini toping.

A) 4 B) -2 C) -1 D) 1

33. $(a^2 + b^2 + 9)x^2 + 2(a + b + 3)x + 3 = 0$ tenglama haqiqiy yechimlarga ega bo‘lsa, $a + b$ ni toping.

A) 0 B) 3 C) -4 D) 6

34. x , y va z haqiqiy sonlar $(9x^2 - 6x + 3)(y^2 - 8y + 17)(4z^2 - 4z + 5) = 8$ tenglikni qanoatlantiradi. $x + y + z$ ning qiymatini toping.

A) $4\frac{1}{6}$ B) $-3,2$ C) $3,2$ D) $4\frac{5}{6}$

Kalitlar

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