18-Mavzu. Irratsional tenglama va tengsizliklar

1. $\sqrt{|x-7|} = x - 1$ tenglamani yeching.

   A) 6   B) –9   C) –2   D) 3

2. $\frac{x-1}{1+\sqrt{x}} = 4 - \frac{1-\sqrt{x}}{2}$ tenglamaning haqiqiy haqiqiy ildizlari sonini toping.

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

3. $\sqrt{x^2 + x - 72} + \sqrt{-x^2 - x + 30} = 24$ tenlamaning musbat ildizlari sonini toping.

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

4. $\sqrt{2x^2 - 4x + 18} + \sqrt{3x^2 - 6x + 28} = \sqrt{-4x^2 + 8x + 77}$ tenglama nechta haqiqiy ildizga ega?

   A) 1   B) 2   C) 3   D) $\emptyset$

5. $\sqrt{x^2 - x - 6} + \sqrt{x^2 + 4x - 21} = \sqrt{x^2 + 20x - 69}$ tenglamani yeching.

   A) $2; 3; 4,5$ B) $23\frac{1}{3}; 2; 3$ C) $2; 3; -23\frac{1}{3}$ D) $4; 5; -23\frac{1}{3}$

6. $\frac{(7-x)\sqrt{7-x}+(x-3)\sqrt{x-3}}{\sqrt{7-x}+\sqrt{x-3}} = 4$ tenglamaning ildizlari yig'indisini toping.

   A) 12   B) 6   C) 8   D) 10

7. Tengsizlikning eng kichik butun yechimini toping: $\sqrt{\frac{2-3x}{x+4}} > -2$

   A) 0   B) –5   C) –2   D) –3

8. $(x-1) \cdot \sqrt{8 - 2x - x^2} \le 0$ tengsizlikning yechimini ko'rsating.

   A) [–2;3]   B) [–4;1]∪{2}   C) [2;∞)   D) [–2;1]∪{3}

9. *n* ning nechta natural qiymati $2007 < \sqrt{n} < 2008$ tengsizlikni qanoatlantiradi?

   A) 4014   B) 4016   C) 4015   D) birorta ham yo'q

10. Tengsizlikni butun yechimlari yig'indisini toping: $\sqrt{x+3} > x - 3$

    A) 8   B) 5   C) 3   D) 9

11. $x + 4 < \sqrt{x + 46}$ tengsizlikni yeching.

    A) $[-46; 0)$ B) $[-46; 3)$ C) $[-46; 1)$ D) $[-46; 49)$

12. $\frac{(x-5)\cdot\sqrt{27+6x-x^2}}{|x+2|} \leq 0$ tengsizlikni yeching.

A) $[-3;5]$ B) $(-2;5]$ C) $[-3;-2)\cup(-2;5]$ D) $[-3;-2)\cup(-2;5]\cup\{9\}$

13. $\sqrt{8+2x-x^2} > 6-3x$ tengsilikning butun sonlardan iborat yechimlari nechta?

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

14. $\sqrt{6x-x^2-4} > x-4$ tengsizlikni qanoatlantiruvchi butun sonlar nechta?

A) 3 B) 5 C) 2 D) 4

15. Tengsizlikni yeching: $\frac{x-8\sqrt{x}+16}{\sqrt{x}-4} < 0$

A) $(16;\infty)$ B) $(-\infty;0)$ C) $(-\infty;16)$ D) $[0;16)$

16. $\sqrt{x-2} \geq x-8$ tengsizlikning eng katta va eng kichik yechimlari ko'paytmasini toping.

A) 18 B) 24 C) 28 D) 22

17. $\sqrt{2x+1} < 7-x$ tengsizlikni yeching.

A) $[-0{,}5;0)$ B) $[-0{,}5;2)$ C) $(-0{,}5;3)$ D) $[-0{,}5;4)$

18. $\sqrt{x+3}+\sqrt{x+15} < 6$ tengsizlikning butun yechimlari yig'indisini toping.

A) -10 B) -80 C) -6 D) -120

19. $\sqrt{x+3}+\sqrt{x+2}-\sqrt{2x+4} > 0$ tengsizlikni yeching.

A) $[-2;\infty)$ B) $(-2{,}5;\infty)$ C) $(-2{,}5;\infty)$ D) $[2;\infty)$

20. $\sqrt{x+3}-\sqrt{x-1} > \sqrt{2x-1}$ tengsizlikni qanoatlantiruvchi butun sonlar nechta?

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

21. $\sqrt{3x^2+5x+7}-\sqrt{3x^2+5x+2} > 1$ tengsizlikni yeching.

A) $\left(-2;-1\right]\cup\left[-\frac{2}{3};\frac{1}{3}\right)$ B) $(-\infty;-2)\cup\left(\frac{1}{3};\infty\right)$

C) $(-\infty;-1]\cup\left[-\frac{2}{3};\infty\right)$ D) $\left(-2;\frac{1}{3}\right)$

22. $a < 0$ da $a\sqrt{x+1} < 1$ tengsizlikni yeching.

A) a ga bog'liq B) $[-1;\infty)$ C) $(-\infty;-1]$ D) $(-\infty;+\infty)$

23. $\frac{\sqrt{x^2-5x+6}}{2x-1} \leq \frac{\sqrt{x^2-5x+6}}{2x+1}$ tengsizlikni yeching.

A) $\left(-\frac{1}{2};\frac{1}{2}\right)$ B) $(-\infty;2) \cup (3;\infty)$ C) $\left[-\frac{1}{2};\frac{1}{2}\right]$ D) $\left(-\frac{1}{2};\frac{1}{2}\right) \cup \{2;3\}$

24. $\frac{7-\sqrt{x}}{3+\sqrt{x}} \geq 0$ tengsizlik nechta butun yechimga ega?

A) 49 ta   B) 50 ta   C) 51 ta   D) cheksiz ko'p

25. $\sqrt{x + 2\sqrt{x-1}} + \sqrt{x - 2\sqrt{x-1}} > 1{,}5$ tengsizlikni yeching.

A) $(0{,}5;\infty)$ B) $(0;1]$ C) $[1;\infty)$ D) $[1;1{,}5]$

Kalitlar

1.	D	16.	D
2.	B	17.	D
3.	D	18.	C
4.	A	19.	A
5.	C	20.	A
6.	D	21.	A
7.	D	22.	B
8.	B	23.	D
9.	A	24.	B
10.	D	25.	C
11.	B		
12.	D		
13.	C		
14.	B		
15.	D		