

ПРАКТИКУМ ПО РЕШЕНИЮ КВАДРАТНЫХ НЕРАВЕНСТВ

$$ax^2 + bx + c < 0$$

1. $(x-4)(2x+3) > 0$;
2. $x(x+7) < 8$;
3. $x^2 - 3x - 4 \geq 0$;
4. $5x^2 - 4x \leq 9$;
5. $x^2 - x + 8 > 0$;
6. $x(2x-3) < -2$;
7. $3x(x+1) \geq -1$;
8. $4x^2 + x + 7 \leq 0$;
9. $x^2 + 4x + 4 > 0$;
10. $x(x-6) < -9$;
11. $(2x-1)^2 \geq 0$;
12. $9x^2 + 6x + 1 \leq 0$;
13. $(5-2x)(4x-11) > 0$;
14. $x(2x+5) < 52$;
15. $x^2 - 11x + 10 \geq 0$;
16. $4x^2 - 8x \leq 5$;
17. $7x^2 - 2x + 1 > 0$;
18. $4x(x+1) < -17$;
19. $x(x-12) \geq -40$;
20. $x^2 + 3x + 27 \leq 0$;
21. $x^2 - 10x + 25 > 0$;
22. $x(x-8) < -16$;
23. $(5x+4)^2 \geq 0$;
24. $4x^2 + 12x + 9 \leq 0$;
25. $x^2 - 14x > 15$;
26. $2x^2 - 13x - 7 < 0$;
27. $x(x-10) \geq 24$;
28. $(7-x)(15+3x) \leq 0$;
29. $x^2 + 3x + 10 > 0$;
30. $x(5x-1) < -2$;
31. $6x(1-x) \geq 7$;
32. $2x^2 - x + 4 \leq 0$;
33. $16x^2 - 24x + 9 > 0$;
34. $(3-4x)^2 < 0$;
35. $x(18-x) \geq 81$;
36. $x^2 + 30x + 225 > 0$.

$$ax^2 + bx < 0$$

1. $x^2 + 5x > 0$;
2. $2x^2 - 3x < 0$;
3. $x^2 \geq 7x$;
4. $x(x-8) \leq 0$;
5. $2x(x+1) > 0$;
6. $5x < x^2$;
7. $9x - 3x^2 \geq 0$;
8. $x^2 - 17x \leq 0$;
9. $2x^2 + 12x > 0$;
10. $4x^2 + 3x < 0$;
11. $x^2 \geq -2x$;
12. $5x(3-2x) \leq 0$;
13. $x(4-7x) > 0$;
14. $10x < -x^2$;
15. $12x - 24x^2 \geq 0$;
16. $5x^2 - x \leq 0$;
17. $17x^2 - 34x > 0$;
18. $10x^2 + x < 0$;
19. $x^2 \geq 14x$;
20. $(2x-9)x \leq 0$;
21. $14x(2-8x) > 0$;
22. $x < x^2$;
23. $15x - 3x^2 \geq 0$;
24. $7x^2 + 42x \leq 0$;
25. $12x^2 + 3x > 0$;
26. $x^2 + x < 0$;
27. $-2x^2 \geq x$;
28. $x(3-6x) \leq 0$;
29. $7x(2x-4) > 0$;
30. $18x < 4x^2$;
31. $x - 4x^2 \geq 0$;
32. $10x^2 + 20x \leq 0$;
33. $13x^2 - 39x > 0$;
34. $4x^2 - 37x < 0$;
35. $x^2 \geq -12x$;
36. $x(2+2x) \leq 0$.

$$ax^2 + c < 0$$

1. $x^2 - 4 > 0$;
2. $2x^2 - 18 < 0$;
3. $16 - x^2 \geq 0$;
4. $25 - 4x^2 \leq 0$;
5. $x^2 + 4 > 0$;
6. $3x^2 + 27 \leq 0$;
7. $4x^2 - 20 > 0$;
8. $x^2 - 7 < 0$;
9. $16 - 2x^2 \geq 0$;
10. $1 - 3x^2 \leq 0$;
11. $x^2 + 17 \geq 0$;
12. $x^2 + 10 < 0$;
13. $x^2 > 36$;
14. $5x^2 < 125$;
15. $100 \geq x^2$;
16. $64 \geq 25x^2$;
17. $x^2 > -25$;
18. $2x^2 \leq -4$;
19. $3x^2 - 30 > 0$;
20. $x^2 - 21 < 0$;
21. $5 - 2x^2 \geq 0$;
22. $7 - 14x^2 \leq 0$;
23. $x^2 + 23 \geq 0$;
24. $7x^2 + 1 < 0$;
25. $x^2 - 169 > 0$;
26. $x^2 - 289 < 0$;
27. $441 - x^2 \geq 0$;
28. $625 - 4x^2 \leq 0$;
29. $x^2 + 121 > 0$;
30. $10x^2 + 1440 \leq 0$;
31. $6x^2 - 12 > 0$;
32. $x^2 - 50 < 0$;
33. $3 - 4x^2 \geq 0$;
34. $5 - 21x^2 \leq 0$;
35. $x^2 + 19 \geq 0$;
36. $x^2 + 22 < 0$.