

EGYENLETEK, EGYENLŐTLENSÉGEK GRAFIKUS MEGOLDÁSA

A

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|---|--------------------------------------|---|
| 1. $2x+1=2 x-3 -1$ | $2x+1\geq 2 x-3 -1$ | $2x+1<2 x-3 -1$ |
| 2. $\frac{3}{5}x+3=3 x-2 -3$ | $\frac{3}{5}x+3\leq 3 x-2 -3$ | $\frac{3}{5}x+3>3 x-2 -3$ |
| 3. $\frac{1}{2}x+1= x+2 -3$ | $\frac{1}{2}x+1> x+2 -3$ | $\frac{1}{2}x+1\leq x+2 -3$ |
| 4. $x+2=3 x-3 +1$ | $x+2<3 x-3 +1$ | $x+2\geq 3 x-3 +1$ |
| 5. $2x+2=\frac{1}{2} x-3 +3$ | $2x+2>\frac{1}{2} x-3 +3$ | $2x+2\leq\frac{1}{2} x-3 +3$ |
| 6. $\frac{3}{2}x+1=-\frac{1}{2} x-4 +5$ | $\frac{3}{2}x+1<-\frac{1}{2} x-4 +5$ | $\frac{3}{2}x+1\geq-\frac{1}{2} x-4 +5$ |
| 7. $\frac{2}{3}x+3=-\frac{1}{2} x-4 +5$ | $\frac{2}{3}x+3>-\frac{1}{2} x-4 +5$ | $\frac{2}{3}x+3\leq-\frac{1}{2} x-4 +5$ |
| 8. $-x+3=-2 x-2 +4$ | $-x+3<-2 x-2 +4$ | $-x+3\geq-2 x-2 +4$ |
| 9. $-x-1=-3 x+1 +2$ | $-x-1>-3 x+1 +2$ | $-x-1\leq-3 x+1 +2$ |

B

- | | | |
|---|---|--|
| 10. $2x+2=(x+1)^2-3$ | $2x+2<(x+1)^2-3$ | $2x+2\geq(x+1)^2-3$ |
| 11. $x-1=(x-4)^2-3$ | $x-1>(x-4)^2-3$ | $x-1\leq(x-4)^2-3$ |
| 12. $\frac{1}{2}x-1=\frac{1}{2}(x-4)^2$ | $\frac{1}{2}x-1<\frac{1}{2}(x-4)^2$ | $\frac{1}{2}x-1\geq\frac{1}{2}(x-4)^2$ |
| 13. $-x+2=\frac{1}{2}(x-4)^2-6$ | $-x+2>\frac{1}{2}(x-4)^2-6$ | $-x+2\leq\frac{1}{2}(x-4)^2-6$ |
| 14. $-\frac{1}{2}x-1=\frac{1}{2}(x+2)^2+1$ | $-\frac{1}{2}x-1<\frac{1}{2}(x+2)^2+1$ | $-\frac{1}{2}x-1\geq\frac{1}{2}(x+2)^2+1$ |
| 15. $-x+5=(x-2)^2-3$ | $-x+5>(x-2)^2-3$ | $-x+5\leq(x-2)^2-3$ |
| 16. $2x-3=2(x-2)^2-3$ | $2x-3<2(x-2)^2-3$ | $2x-3\geq 2(x-2)^2-3$ |
| 17. $-x+5=2(x-2)^2-3$ | $-x+5>2(x-2)^2-3$ | $-x+5\leq 2(x-2)^2-3$ |
| 18. $-2x-5=2(x+1)^2-3$ | $-2x-5<2(x+1)^2-3$ | $-2x-5\geq 2(x+1)^2-3$ |
| 19. $-2x+5=-(x-1)^2+3$ | $-2x+5>-(x-1)^2+3$ | $-2x+5\leq-(x-1)^2+3$ |
| 20. $-x+5=-(x-4)^2+3$ | $-x+5<-(x-4)^2+3$ | $-x+5\geq-(x-4)^2+3$ |
| 21. $-\frac{1}{2}x+2=-\frac{1}{2}(x-4)^2+3$ | $-\frac{1}{2}x+2>-\frac{1}{2}(x-4)^2+3$ | $-\frac{1}{2}x+2\leq-\frac{1}{2}(x-4)^2+3$ |
| 22. $x-1=-\frac{1}{2}(x-4)^2+3$ | $x-1<-\frac{1}{2}(x-4)^2+3$ | $x-1\geq-\frac{1}{2}(x-4)^2+3$ |
| 23. $x-2=-\frac{1}{2}(x-2)^2+4$ | $x-2>-\frac{1}{2}(x-2)^2+4$ | $x-2\leq-\frac{1}{2}(x-2)^2+4$ |
| 24. $-x-1=-\frac{1}{2}(x+1)^2+4$ | $-x-1<-\frac{1}{2}(x+1)^2+4$ | $-x-1\geq-\frac{1}{2}(x+1)^2+4$ |

C

25. $-x+1 = \sqrt{x+2} + 1$	$-x+1 > \sqrt{x+2} + 1$	$-x+1 \leq \sqrt{x+2} + 1$
26. $-2x+2 = \sqrt{x+5} + 2$	$-2x+2 < \sqrt{x+5} + 2$	$-2x+2 \geq \sqrt{x+5} + 2$
27. $2x+2 = \sqrt{x+3} + 2$	$2x+2 > \sqrt{x+3} + 2$	$2x+2 \leq \sqrt{x+3} + 2$
28. $x+2 = 2\sqrt{x+4} - 2$	$x+2 < 2\sqrt{x+4} - 2$	$x+2 \geq 2\sqrt{x+4} - 2$
29. $\frac{2}{3}x+1 = 2\sqrt{x+3} - 1$	$\frac{2}{3}x+1 > 2\sqrt{x+3} - 1$	$\frac{2}{3}x+1 \leq 2\sqrt{x+3} - 1$
30. $2x+1 = 3\sqrt{x+3} - 4$	$2x+1 < 3\sqrt{x+3} - 4$	$2x+1 \geq 3\sqrt{x+3} - 4$
31. $x-3 = -\sqrt{x-1} + 5$	$x-3 > -\sqrt{x-1} + 5$	$x-3 \leq -\sqrt{x-1} + 5$
32. $2x-2 = -\sqrt{x-1} + 3$	$2x-2 < -\sqrt{x-1} + 3$	$2x-2 \geq -\sqrt{x-1} + 3$
33. $-\frac{2}{3}x+2 = -2\sqrt{x+3} + 4$	$-\frac{2}{3}x+2 > -2\sqrt{x+3} + 4$	$-\frac{2}{3}x+2 \leq -2\sqrt{x+3} + 4$
34. $-x+1 = -2\sqrt{x+2} + 3$	$-x+1 < -2\sqrt{x+2} + 3$	$-x+1 \geq -2\sqrt{x+2} + 3$

D

35. $-x+4 = \frac{1}{x-3} + 1$	$-x+4 > \frac{1}{x-3} + 1$	$-x+4 \leq \frac{1}{x-3} + 1$
36. $-x = \frac{1}{x+3} + 1$	$-x < \frac{1}{x+3} + 1$	$-x \geq \frac{1}{x+3} + 1$
37. $x+5 = \frac{1}{x+2} + 3$	$x+5 > \frac{1}{x+2} + 3$	$x+5 \leq \frac{1}{x+2} + 3$
38. $x+1 = \frac{1}{x-2} + 3$	$x+1 < \frac{1}{x-2} + 3$	$x+1 \geq \frac{1}{x-2} + 3$
39. $2x+1 = \frac{2}{x-1} + 3$	$2x+1 > \frac{2}{x-1} + 3$	$2x+1 \leq \frac{2}{x-1} + 3$
40. $\frac{1}{2}x+2 = \frac{2}{x-4} + 4$	$\frac{1}{2}x+2 < \frac{2}{x-4} + 4$	$\frac{1}{2}x+2 \geq \frac{2}{x-4} + 4$
41. $-x+1 = -\frac{1}{x+2} + 3$	$-x+1 > -\frac{1}{x+2} + 3$	$-x+1 \leq -\frac{1}{x+2} + 3$
42. $-x+5 = -\frac{1}{x-2} + 3$	$-x+5 < -\frac{1}{x-2} + 3$	$-x+5 \geq -\frac{1}{x-2} + 3$
43. $-x+1 = -\frac{2}{x+1} + 3$	$-x+1 > -\frac{2}{x+1} + 3$	$-x+1 \leq -\frac{2}{x+1} + 3$
44. $-\frac{1}{2}x+1 = -\frac{2}{x-2}$	$-\frac{1}{2}x+1 < -\frac{2}{x-2}$	$-\frac{1}{2}x+1 \geq -\frac{2}{x-2}$

E

45. $ x-4 -2 = (x+1)^2 + 1$	$ x-4 -2 > (x+1)^2 + 1$	$ x-4 -2 \leq (x+1)^2 + 1$
46. $ x -1 = (x-5)^2 + 2$	$ x -1 < (x-5)^2 + 2$	$ x -1 \geq (x-5)^2 + 2$
47. $ x-2 +1 = \frac{1}{2}(x-3)^2 + 2$	$ x-2 +1 > \frac{1}{2}(x-3)^2 + 2$	$ x-2 +1 \leq \frac{1}{2}(x-3)^2 + 2$

$$48. |x-4|-2 = \frac{1}{2}(x-1)^2 - 3 \quad |x-4|-2 < \frac{1}{2}(x-1)^2 - 3 \quad |x-4|-2 \geq \frac{1}{2}(x-1)^2 - 3$$

$$49. |x-2| = -(x+1)^2 + 5 \quad |x-2| > -(x+1)^2 + 5 \quad |x-2| \leq -(x+1)^2 + 5$$

F

$$50. |x-2| = \sqrt{x+2} + 2 \quad |x-2| < \sqrt{x+2} + 2 \quad |x-2| \geq \sqrt{x+2} + 2$$

$$51. \frac{1}{2}|x+1|+1 = \sqrt{x-1} + 2 \quad \frac{1}{2}|x+1|+1 > \sqrt{x-1} + 2 \quad \frac{1}{2}|x+1|+1 \leq \sqrt{x-1} + 2$$

$$52. 2|x+1|-3 = 2\sqrt{x+2} - 1 \quad 2|x+1|-3 < 2\sqrt{x+2} - 1 \quad 2|x+1|-3 \geq 2\sqrt{x+2} - 1$$

$$53. \frac{5}{2}|x-3|-3 = -\sqrt{x-1} + 4 \quad \frac{5}{2}|x-3|-3 > -\sqrt{x-1} + 4 \quad \frac{5}{2}|x-3|-3 \leq -\sqrt{x-1} + 4$$

$$54. |x-1|-2 = -2\sqrt{x+3} + 2 \quad |x-1|-2 < -2\sqrt{x+3} + 2 \quad |x-1|-2 \geq -2\sqrt{x+3} + 2$$

G

$$55. |x-1| = \frac{1}{x-2} + 1 \quad |x-1| > \frac{1}{x-2} + 1 \quad |x-1| \leq \frac{1}{x-2} + 1$$

$$56. |x+1| + 2 = \frac{1}{x+1} + 2 \quad |x+1| + 2 < \frac{1}{x+1} + 2 \quad |x+1| + 2 \geq \frac{1}{x+1} + 2$$

$$57. -|x+2| + 4 = \frac{1}{x+2} + 4 \quad -|x+2| + 4 > \frac{1}{x+2} + 4 \quad -|x+2| + 4 \leq \frac{1}{x+2} + 4$$

$$58. -|x-4| + 4 = -\frac{1}{x-4} + 4 \quad -|x-4| + 4 < -\frac{1}{x-4} + 4 \quad -|x-4| + 4 \geq -\frac{1}{x-4} + 4$$

$$59. -|x+1| + 2 = -\frac{1}{x+1} + 2 \quad -|x+1| + 2 > -\frac{1}{x+1} + 2 \quad -|x+1| + 2 \leq -\frac{1}{x+1} + 2$$

H

$$60. (x+1)^2 - 4 = 4\sqrt{x+2} - 3 \quad (x+1)^2 - 4 < 4\sqrt{x+2} - 3 \quad (x+1)^2 - 4 \geq 4\sqrt{x+2} - 3$$

$$61. (x-2)^2 - 4 = 2\sqrt{x-1} + 1 \quad (x-2)^2 - 4 > 2\sqrt{x-1} + 1 \quad (x-2)^2 - 4 \leq 2\sqrt{x-1} + 1$$

$$62. \frac{1}{2}(x-2)^2 - 3 = 2\sqrt{x-2} + 1 \quad \frac{1}{2}(x-2)^2 - 3 < 2\sqrt{x-2} + 1 \quad \frac{1}{2}(x-2)^2 - 3 \geq 2\sqrt{x-2} + 1$$

$$63. -(x+1)^2 + 3 = 2\sqrt{x+1} \quad -(x+1)^2 + 3 > 2\sqrt{x+1} \quad -(x+1)^2 + 3 \leq 2\sqrt{x+1}$$

$$64. -\frac{1}{2}(x-1)^2 + 3 = 3\sqrt{x-2} - 2 \quad -\frac{1}{2}(x-1)^2 + 3 < 3\sqrt{x-2} - 2$$

$$-\frac{1}{2}(x-1)^2 + 3 \geq 3\sqrt{x-2} - 2$$