

PRACTICE EXERCISES

Solve and check. If an equation has no solution, so state.

1. $|3x| = 18$
2. $|5x| = 30$
3. $|-4x| = 32$
4. $|-9x| = 36$
5. $|x - 3| = 9$
6. $|x - 4| = 9$
7. $|x + 2| = 0$
8. $|x + 5| = 12$
9. $|5y - 8| = 12$
10. $|4y - 5| = 15$
11. $|3x + 2| = 7$
12. $|5y + 3| = 9$
13. $2|w + 6| = 10$
14. $3|x + 5| = 12$
15. $3|2w - 1| = 21$
16. $2|3w - 2| = 14$
17. $|3x + 4| = -3$
18. $|2x - 3| = -1$
~~19. $|3x + 5| = 5x + 2$~~
~~20. $|2x - 3| = 4x - 1$~~
21. $|x + 4| + 3 = 17$
22. $|y - 5| - 2 = 10$
23. $|6y - 2| + 4 = 32$
24. $|3x - 1| + 10 = 25$
25. $-|4 - 8x| = 12$
26. $-|2w - 6| = 10$
27. $7|3 - 2y| = 56$
28. $8|4 - 3y| = 48$

Set 1

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Solve and graph the solution set.

1. $|x + 3| < 9$
2. $|x + 4| < 8$
3. $|x - 2| < 6$
4. $|x - 5| < 9$
5. $|2x - 3| < 7$
6. $|2x - 5| < 9$
7. $|y - 5| > 10$
8. $|y - 3| > 12$
9. $|5 - y| < 19$
10. $|4 - 2w| \geq 12$
11. $|2z + 3| - 6 < 14$
12. $|3x - 6| + 3 > 15$
13. $|3x - 4| + 5 \leq 27$
14. $|2x + 3| - 6 \geq 7$
15. $2|x + 4| \leq 22$
16. $2|w + 6| \leq 10$
17. $3|w - 9| > 27$
18. $3|2x - 1| \geq 21$
19. $|3z| - 4 \leq 8$
20. $|2x| + 8 > 12$
21. $|6y - 2| + 4 < 22$
22. $|5z + 3| - 7 > 34$
23. $4|2w + 3| - 7 < 9$
24. $3|5t - 1| + 9 > 23$
25. $|2y - 6| < 0$
26. $|3z + 15| > 0$
27. $|-2x + 1| > 2$
28. $|-2x - 1| < 2$
29. $\frac{1}{2}|x - 6| - 3 < 1$
30. $\frac{1}{4}|x - 3| + 2 > 1$

Set 2