

DIRECTIONS: Determine whether the given value for x is a solution for the absolute value equation.

1. $|3x + 7| = 13$; $x = -2$
No

2. $|6 - 5x| = 19$; $x = 5$
Yes

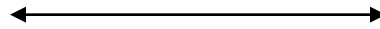
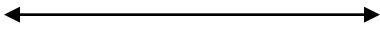
3. $|-4x + 7| = 29$; $x = 9$
Yes

4. $|-2 - 8x| = 26$; $x = -3$
No

DIRECTIONS: Solve the following absolute value equations. Show all work. Graph your solutions on the number lines.

5. $|x - 9| = 7$
 $x = 2, 16$

6. $|x + 8| = 12$
 $x = -20, 4$



7. $|4x| = 24$
 $x = \pm 6$

8. $|\frac{2}{3}x| = 18$
 $x = \pm 27$



DIRECTIONS: Solve the following absolute value equations. Show all work. Graph your solutions on the number lines.

9. $|3x - 9| = 18$

$$x = -3, 9$$



10. $|5x + 8| = 0$

$$x = -\frac{8}{5}$$



11. $|3x - 12| = -3$

No solution



DIRECTIONS: Solve the following absolute value equations. Show all work.

12. $|1 - 2x| = 21$

$$x = -10, 11$$

13. $5|x - 12| = 30$

$$x = 6, 18$$

14. $3|4 - x| = 36$

$$x = -8, 16$$

15. $-3|x + 1| = 15$

No solution

16. $4|2x - 6| - 2 = 10$

$$x = \frac{3}{2}, \frac{9}{2}$$

17. $8 - |2x - 5| = -1$

$$x = -2, 7$$