Algebra I Worksheet #3 Unit 5 Selected Solutions

Solve each of the following equations. Show your steps neatly organized.

3. $|2x + 5| = 3$

$2x + 5 = 3$ or $2x + 5 = -3$

$-5 \quad -5 \qquad\qquad -5 \quad -5$

$\frac{2x}{2} = \frac{-2}{2} \qquad \frac{2x}{2} = \frac{-8}{2}$

$x = -1$ or $x = -4$

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

$4x - 6 = 2$ or $4x - 6 = -2$

$+6 \quad +6 \qquad\qquad +6 \quad +6$

$\frac{4x}{4} = \frac{8}{4} \qquad \frac{4x}{4} = \frac{4}{4}$

$x = 2$ or $x = 1$

9. $|5x - 2| = 5$

$5x - 2 = 5$ or $5x - 2 = -5$

$+2 \quad +2 \qquad\qquad +2 \quad +2$

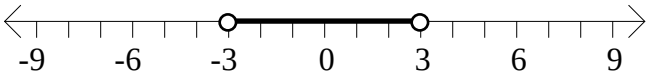
$\frac{5x}{5} = \frac{7}{5} \qquad \frac{5x}{5} = \frac{-3}{5}$

$x = \frac{7}{5}$ or $x = \frac{-3}{5}$

Solve for x. Graph the solution sets on the number lines provided.

13. $|x| < 3$

$-3 < x < 3$

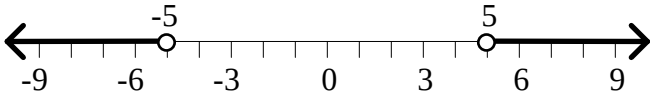


14. $|x| \leq 5$

$-5 \leq x \leq 5$

19. $|x| > 5$

$x < -5$ or $x > 5$



20. $|x| \geq 3$

$x \leq -3$ or $x \geq 3$