

A2T HW on Solving Absolute Value Equations and Inequalities

Solve each equation and graph the solution. *Hint: one of these has no solution – can you figure out which one and why?*

1) $|5x - 2| = 8$ $\boxed{2, -6/5}$

2) $2|4 - 5x| = 6$ $\boxed{1/5, 7/5}$

3) $3|x + 4| + 18 = 6$ $\boxed{\emptyset}$

4) $|2x - 1| + 3 = 15$ $\boxed{\frac{13}{2}, \frac{-11}{2}}$

Solve each inequality and graph the solution.

5) $|n + 9| \leq 1$
 $-10 \leq n \leq -8$

6) $\frac{|5x - 2|}{3} < 3$
 $-7/5 < x < 4/5$

7) $2|6m - 8| \geq 32$
 $m \geq 4$ or $m \leq -4/3$

8) $|9 - 2p| + 5 > 24$
 $p < -5$ or $p > 14$