

Solving Absolute Value with Algebra

Name: \_\_\_\_\_ #

Do this assignment on a separate sheet of paper.

Part 1: Solve each compound inequality. Graph your solution on a number line. Show all work.

- 1)  $3(x - 2) \geq 5$  or  $\frac{x}{4} + 6 < 5$
- 2)  $-5 \leq 2x + 1 \leq 3$
- 3)  $7x - (3 - 2x) \geq x - 3$  and  $4x < 16$

Part 2: Solve and graph the following absolute value equations and inequalities. Show all work.

- 4)  $-2|x + 6| = -10$
- 5)  $|2x - 3| \leq 5$
- 6)  $|11 - 3x| + 6 > 10$
- 7)  $3|2x - 2| + 8 = 23$
- 8)  $\frac{1}{2}|x - 5| + 1 < 7$

Solving Absolute Value with Algebra

Name: \_\_\_\_\_ #

Do this assignment on a separate sheet of paper.

Part 1: Solve each compound inequality. Graph your solution on a number line. Show all work.

- 1)  $3(x - 2) \geq 5$  or  $\frac{x}{4} + 6 < 5$
- 2)  $-5 \leq 2x + 1 \leq 3$
- 3)  $7x - (3 - 2x) \geq x - 3$  and  $4x < 16$

Part 2: Solve and graph the following absolute value equations and inequalities. Show all work.

- 4)  $-2|x + 6| = -10$
- 5)  $|2x - 3| \leq 5$
- 6)  $|11 - 3x| + 6 > 10$
- 7)  $3|2x - 2| + 8 = 23$
- 8)  $\frac{1}{2}|x - 5| + 1 < 7$