

Algebra 2: Homework 8

In 1 – 8, solve and graph.

1. $|x| < 8$

2. $|x| \geq 8$

3. $|x| - 3 < 4$

4. $|x + 5| \leq 10$

5. $|2b + 3| > 5$

6. $|5 - a| > 1$

7. $|x - 4| + 7 \leq 10$

8. $|y + 3| + 5 = 2y$

9. Which of the given inequalities has \emptyset as its solution set?

(1) $|x| > 2$

(3) $|x| > -2$

(2) $|x| < 2$

(4) $|x| < -2$

10. Name the property illustrated by each equation:

a) $\frac{1}{5} \cdot 5 = 1$

c) $\frac{1}{5} + \frac{1}{6} = \frac{1}{5} + \frac{1}{6}$

b) $\frac{1}{5} + \left(-\frac{1}{5}\right) = 0$

d) $\left(\frac{1}{5} + \frac{1}{6}\right) + \frac{1}{7} = \frac{1}{5} + \left(\frac{1}{6} + \frac{1}{7}\right)$