

Absolute Value Inequalities WS

Name _____

Solve. Write answers in interval notation.

1. $\left| \frac{2x+3}{-5} \right| < 3$

2. $-2|4x+1| \geq -4$

3. $2|4x+1| < -4$

4. $2|3-x|-11 > -7$

5. $-3|3-x|+6 \geq 15$

6. $5-2|x+2| > 3$

7. $6 \leq |x-2|$

8. $|x-2| < 2x-7$

9. $|2x| > x-1$

Answers:

- 1.
- $(-9, 6)$
- 2.
- $[-3/4, 1/4]$
- 3.
- \emptyset
- 4.
- $(-\infty, 1) \cup (5, \infty)$
- 5.
- \emptyset
- 6.
- $(-3, -1)$
- 7.
- $(-\infty, -4] \cup [8, \infty)$
- 8.
- $(5, \infty)$
- 9.
- \mathbb{R}