

6. Solve the inequality $-5 < 4x - 6 < 5$

express your solution sets using interval notation.

$$\left[\frac{1}{4}, \frac{11}{4} \right]$$

$$\left(-\infty, \frac{1}{4} \right) \cup \left(\frac{11}{4}, +\infty \right)$$

$$\left(\frac{1}{4}, \frac{11}{4} \right)$$

$$\left(-\infty, \frac{1}{4} \right] \cup \left[\frac{11}{4}, +\infty \right)$$

Solution

Intervals

Solve:

$$|4x - 6| + 3 < 8$$

$$|4x - 6| < 5$$

$$-5 < 4x - 6 < 5$$

$$-5 - (-6) < 4x < 5 - (-6)$$

$$1 < 4x < 11$$

Divide each side by 4

$$|4x - 6| + 3 < 8$$

$$\frac{1}{4} < x < \frac{11}{4}$$