

7. Solve the inequalities $|5x - 6| + 2 < 9$
express your solution sets using interval notation.

$$\left[-\frac{1}{5}, \frac{13}{5}\right]$$

$$\left(-\infty, -\frac{1}{5}\right) \cup \left(\frac{13}{5}, +\infty\right)$$

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Solution

Intervals

Solve:

$$|5x - 6| + 2 < 9$$

$$|5x - 6| < 7$$

$$-7 < 5x - 6 < 7$$

$$-7 - (-6) < 5x < 7 - (-6)$$

$$-1 < 5x < 13$$

Divide each side by 5

$$|5x - 6| + 2 < 9$$

$$-\frac{1}{5} < x < \frac{13}{5}$$

