

4. Solve the inequality  $-3 < 8x - 2 < 3$

express your solution sets using interval notation.

$$\left[-\frac{1}{8}, \frac{5}{8}\right]$$

$$\left(-\infty, -\frac{1}{8}\right) \cup \left(\frac{5}{8}, +\infty\right)$$

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**Solution**

**Intervals**

Solve:

$$|8x - 2| + 2 < 5$$

$$|8x - 2| < 3$$

$$-3 < 8x - 2 < 3$$

$$-3 - (-2) < 8x < 3 - (-2)$$

$$-1 < 8x < 5$$

Divide each side by 8

$$|8x - 2| + 2 < 5$$

$$-\frac{1}{8} < x < \frac{5}{8}$$