

9. Solve the inequality $-2 < 10 - 7x < 2$

express your solution sets using interval notation.

$$\left[\frac{8}{7}, \frac{12}{7} \right]$$

$$(-\infty, \frac{8}{7}) \cup (\frac{12}{7}, +\infty)$$

$$(\frac{8}{7}, \frac{12}{7})$$

$$(-\infty, \frac{8}{7}] \cup [\frac{12}{7}, +\infty)$$

Solution

Intervals

Solve:

$$|10 - 7x| + 4 < 6$$

$$|10 - 7x| < 2$$

$$-2 < 10 - 7x < 2$$

$$-2 - (10) < -7x < 2 - (10)$$

$$-12 < -7x < -8$$

Divide each side by -7 and flip the inequalities

$$|10 - 7x| + 4 < 6$$

$$\frac{8}{7} < x < \frac{12}{7}$$

