

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

express your solution sets using interval notation.

$$\left[\frac{3}{4}, \frac{5}{4}\right]$$

$$\left(-\infty, \frac{3}{4}\right) \cup \left(\frac{5}{4}, +\infty\right)$$

$$\left(\frac{3}{4}, \frac{5}{4}\right)$$

$$\left(-\infty, \frac{3}{4}\right] \cup \left[\frac{5}{4}, +\infty\right)$$

Solution

Intervals

Solve:

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

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

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

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

$$-10 < -8x < -6$$

Divide each side by -8 and flip the inequalities

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

$$\frac{3}{4} < x < \frac{5}{4}$$

