

1. Solve the inequalities  $|9x - 9| + 3 \leq 10$   
express your solution sets using interval notation.

$$\left(\frac{2}{9}, \frac{16}{9}\right)$$

$$\left(-\infty, \frac{2}{9}\right) \cup \left(\frac{16}{9}, +\infty\right)$$

$$\left[\frac{2}{9}, \frac{16}{9}\right]$$

$$\left(-\infty, \frac{2}{9}\right] \cup \left[\frac{16}{9}, +\infty\right)$$

**Solution**

**Intervals**

Solve:

$$|9x - 9| + 3 \leq 10$$

$$|9x - 9| \leq 7$$

$$-7 \leq 9x - 9 \leq 7$$

$$-7 - (-9) \leq 9x \leq 7 - (-9)$$

$$2 \leq 9x \leq 16$$

Divide each side by 9

$$|9x - 9| + 3 \leq 10$$

0.25      0.50      0.75      1.00      1.25      1.50      1.75

$$\frac{2}{9} \leq x \leq \frac{16}{9}$$