

5. Solve the inequalities $7|x| + 2 \leq 5$

express your solution sets using interval notation.

$$\left(-\frac{3}{7}, \frac{3}{7}\right)$$

$$\left(-\infty, -\frac{3}{7}\right) \cup \left(\frac{3}{7}, +\infty\right)$$

$$\left[-\frac{3}{7}, \frac{3}{7}\right]$$

$$\left(-\infty, -\frac{3}{7}\right] \cup \left[\frac{3}{7}, +\infty\right)$$

Solution

Intervals

Solve:

$$7|x| + 2 \leq 5$$

$$7|x| \leq 3$$

$$-3 \leq 7x \leq 3$$

$$-3 - (0) \leq 7x \leq 3 - (0)$$

$$-3 \leq 7x \leq 3$$

Divide each side by 7

$$7|x| + 2 \leq 5$$

-0.4

-0.2

0

0.2

0.4

$$-\frac{3}{7} \leq x \leq \frac{3}{7}$$