

4. Solve the inequality $-3 < 9x + 9 < 3$

express your solution sets using interval notation.

$$\left[-\frac{4}{3}, -\frac{2}{3}\right]$$

$$(-\infty, -\frac{4}{3}) \cup (-\frac{2}{3}, +\infty)$$

$$(-\frac{4}{3}, -\frac{2}{3})$$

$$(-\infty, -\frac{4}{3}] \cup [-\frac{2}{3}, +\infty)$$

Solution

Intervals

Solve:

$$|9x + 9| + 3 < 6$$

$$|9x + 9| < 3$$

$$-3 < 9x + 9 < 3$$

$$-3 - (9) < 9x < 3 - (9)$$

$$-12 < 9x < -6$$

Divide each side by 9

$$|9x + 9| + 3 < 6$$

$$-\frac{4}{3} < x < -\frac{2}{3}$$

