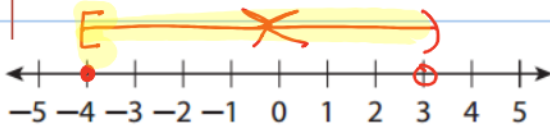


2 Example Solve each compound inequality, graph the solutions and interval notation.

**A**  $-5 \leq 2x + 3 < 9$

$$\begin{array}{r} 2x + 3 \geq -5 \\ -3 \quad -3 \\ \hline 2x \geq -8 \\ \frac{2x}{2} \geq \frac{-8}{2} \\ x \geq -4 \\ \bullet [ \end{array}$$

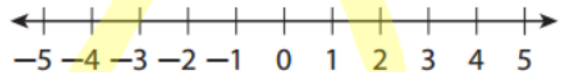
$$\begin{array}{r} 2x + 3 < 9 \\ -3 \quad -3 \\ \hline 2x < 6 \\ \frac{2x}{2} < \frac{6}{2} \\ x < 3 \\ \bullet ( \end{array}$$



D:  $[-4, 3)$

**B**  $-10 < 3x + 2 \leq 8$

Skip



3 Example Solve each compound inequality, graph the solutions and interval notation.

**A**  $-4 + x > 1$  or  $-4 + x < -3$

$$\begin{array}{r} -4 + x > 1 \\ +4 \quad +4 \\ \hline x > 5 \\ \bullet ( \end{array}$$

$$\begin{array}{r} -4 + x < -3 \\ +4 \quad +4 \\ \hline x < 1 \\ \bullet ( \end{array}$$

D:  $(-\infty, 1) \cup (5, \infty)$

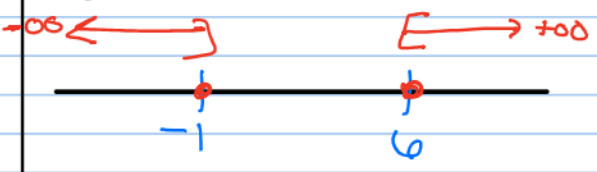


**B**  $x - 5 \geq 1$  or  $x - 5 \leq -6$

$$\begin{array}{r} x - 5 \geq 1 \\ +5 \quad +5 \\ \hline x \geq 6 \\ \bullet [ \end{array}$$

$$\begin{array}{r} x - 5 \leq -6 \\ +5 \quad +5 \\ \hline x \leq -1 \\ \bullet [ \end{array}$$

D:  $(-\infty, -1] \cup [6, \infty)$



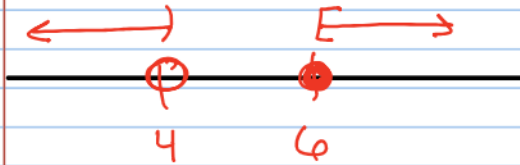
4 Example Solve each compound inequality, graph the solutions and interval notation.

A  $4x - 1 < 15$  or  $8x \geq 48$

$\frac{4x}{4} < \frac{16}{4}$

$x < 4$

$x \geq 6$



$D: (-\infty, 4) \cup [6, \infty)$

B  $4x \leq 6$  or  $3x > 12$

Skip



5 Example Write the compound inequality shown by each graph.

