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

A $-5 \le 2x+3 < 9$

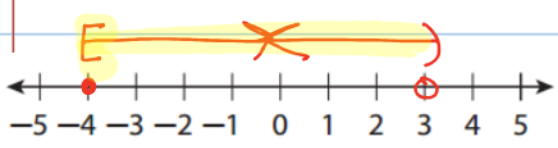
$2x+3 \ge -5$ and $2x+3 < 9$

$-3 \quad -3$ $\quad$ $-3 \quad -3$

$\frac{2x}{2} \ge \frac{-8}{2}$ $\quad$ $\frac{2x}{2} < \frac{6}{2}$

$x \ge -4$ $\quad$ $x < 3$

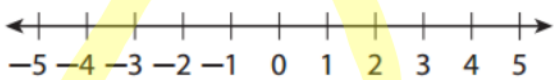
$[$ $\quad$ $)$



$D: [-4, 3)$

B $-10 < 3x+2 \le 8$

Skip



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

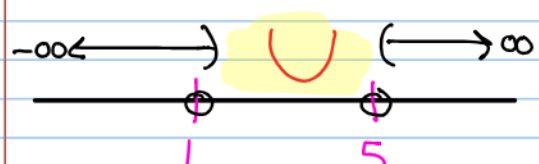
A $-4+x > 1$ or $-4+x < -3$

$+4 \quad +4$ $\quad$ $+4 \quad +4$

$x > 5$ $\quad$ $x < 1$

$($ $\quad$ $)$ $\quad$ $($ $\quad$ $)$

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



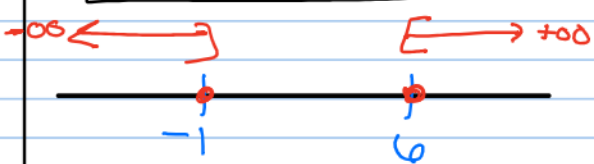
B $x-5 \ge 1$ or $x-5 \le -6$

$+5 \quad +5$ $\quad$ $+5 \quad +5$

$x \ge 6$ $\quad$ $x \le -1$

$[$ $\quad$ $]$ $\quad$ $[$ $\quad$ $]$

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



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

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

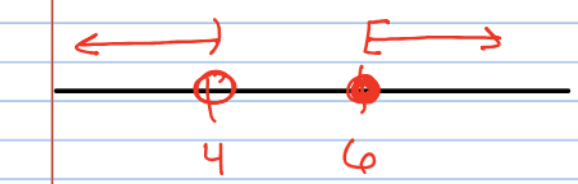
$+1 \quad +1$

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

$x < 4$

$\frac{8x}{8} \geq \frac{48}{8}$

$x \geq 6$



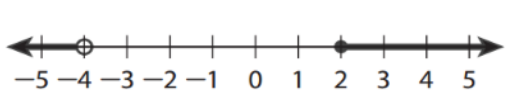
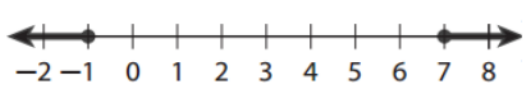
$D: (-\infty, 4) \cup [6, \infty)$

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

Skip

5 Example Write the compound inequality shown by each graph.

A



B