

Algebra 1 5.4
Solve compound inequalities (and/or)
Graph solution sets of compound
inequalities

inequality
greater than $>$ \geq
less than $<$ \leq
Venn diagram
intersection
union
compound inequality



● To ride certain roller coasters, you must be at least 52 inches tall, and your height cannot exceed 72 inches. If h represents the height of a rider, we can write two inequalities to represent this.

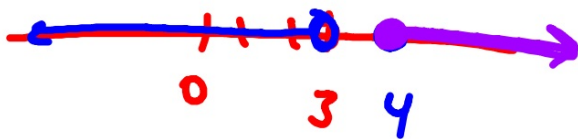
Whiteboards

Solve each compound inequality. Then graph the solution set.

3A. $a + 1 < 4$ or $a - 1 \geq 3$

$\downarrow -1 \quad -1 \quad +1 \quad +1$

$a < 3$ or $a \geq 4$



3B. $x \leq 9$ or $2 + 4x < 10$

$\downarrow \quad -2 \quad \downarrow -2$

$x \leq 9$

$$\frac{4x < 8}{\frac{4}{4} \quad \frac{8}{4}}$$

$x < 2$



ICE handouts

$$\underline{-1 \leq X - 3 < 5}$$

$$\begin{array}{r} -1 \leq X - 3 \quad \text{and} \quad X - 3 < 5 \\ +3 \quad \quad +3 \quad \quad \quad +3 \quad \quad +3 \\ \hline 2 \leq X \quad \quad \quad \text{and} \quad X < 8 \end{array}$$

