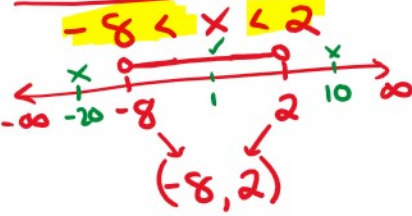


# • Absolute Value Inequalities

$$-10 < |2x+6| < 10 \quad \text{less than}$$

$$\begin{array}{r} -10 < 2x+6 < 10 \\ -6 \quad -6 \quad -6 \end{array}$$

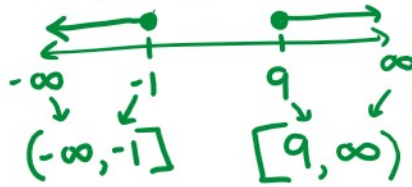
$$\begin{array}{r} -16 < \frac{2x}{2} < \frac{4}{2} \end{array}$$



$$-5 \geq |x-4| \geq 5 \quad \text{greater than}$$

$$\begin{array}{r} -5 \geq x-4 \geq 5 \\ +4 \quad +4 \quad +4 \end{array}$$

$$-1 \geq x \geq 9 \rightarrow -1 \geq x \text{ OR } x \geq 9$$



$$|x-4| \geq 5$$

$$x-4 \leq -5 \quad \text{OR} \quad x-4 \geq 5$$

$$x \leq -1 \quad \text{OR} \quad x \geq 9$$

Special:

$$|\text{Abs. Val.}| > -\#$$

$$|3x-5| > -2$$

$\mathbb{R}$   
IMS

$$|\text{Abs. Val.}| < -\#$$

$$|5x+3| < -10$$

$\emptyset$   
No Solutions