$$|2x-4| + 6^{-6} = 10^{-6}$$

$$|2x-4| = 4$$

$$2x-4 = 4 \quad \text{or} \quad 2x-4 = -4$$

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

$$\frac{2x}{2} = \frac{8}{2} \quad \text{or} \quad \frac{2x}{2} = \frac{0}{2}$$

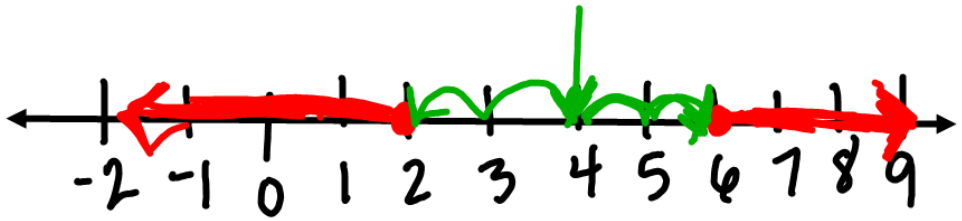
$$x = 4 \quad \text{or} \quad x = 0$$

Absolute Value & Inequalities

$$2 \leq x \leq 6$$

$$|x - 4| \leq 2$$

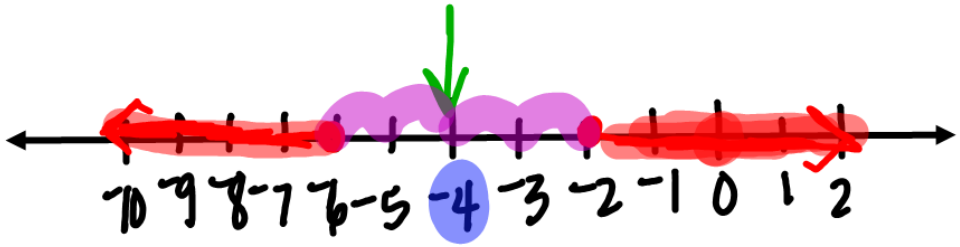
The distance between x and 4 is less than or equal to 2.



$x \leq 2$ or $x \geq 6$

$|x - 4| \geq 2$

The distance between x and 4 is greater than or equal to 2.



$|x - (-4)| \geq 2$

$|x + 4| \geq 2$

$|x-5|<3$

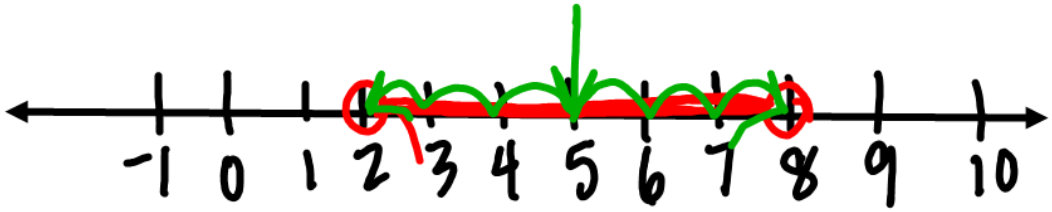
- Less Than
- Less Than or equal to

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

$-3 < x-5 < 3$

Copy the problem w/o | |

$2 < x < 8$



$|x-5|<3$

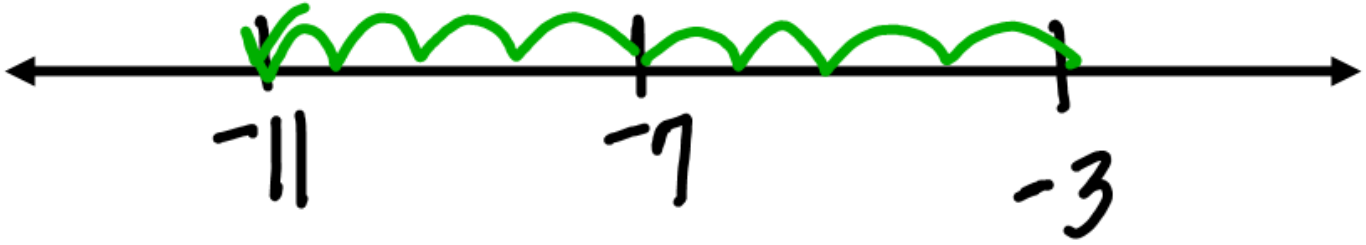
$$|x + 7| \leq 4$$

$$-7 \qquad -7 \qquad -7$$

$$-4 \leq x + 7 \leq 4$$

$$-11 \leq x \leq -3$$

$$|x - -7| \leq 4$$



$$|x-5| \leq -2$$

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

$$2 \leq x-5 \leq -2$$

$$7 \leq x \leq 3$$

No Solution

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