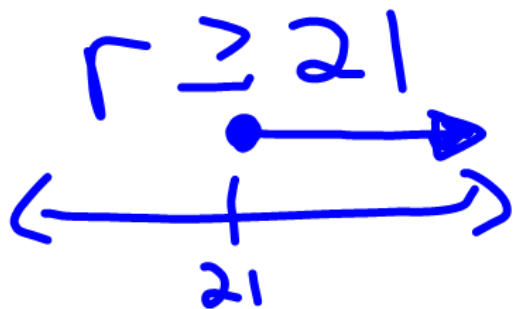


Warm-up

Solve & graph

$$\textcircled{1} \quad r + 7 \geq 28$$

$-7 \quad -7$



$$\textcircled{2} \quad -6t + 7 \leq 19$$

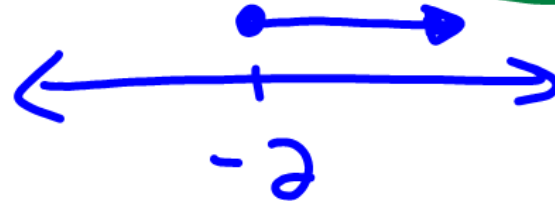
$-7 \quad -7$

$$-6t \leq 12$$

$\div -6 \quad \div -6$

$$t \geq -2$$

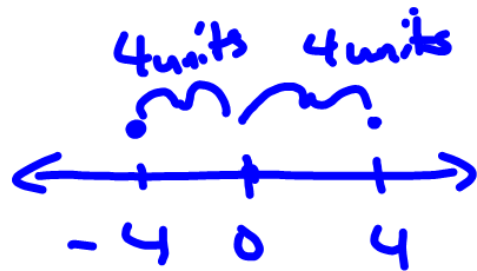
switch!



6.5 Solve Absolute Value

$$|4| = 4$$

$$|-4| = 4 \rightarrow \text{Makes the \# inside positive / happy}$$



* Is a distance from 0 or a place

$$|-4| \stackrel{?}{=} -4$$

← Can't have a negative distance!

Solving Them

$$|x| = 7 \quad \text{so...} \quad x = 7 \quad \text{or} \quad x = -7$$

↑
Inside here,
Can have 7 or -7

$$|7| = 7$$

$$|-7| = 7$$

$$|x+2| = 4 \quad \text{so...} \quad x+2 = 4 \quad \text{or} \quad x+2 = -4$$

↑
Inside need 4 or -4

cuz $|4| = 4$
 $|-4| = 4$

$$x = 2 \quad \text{or} \quad x = -6$$

$$|x-7| = 9$$

9 or -9

$$x-7 = 9 \quad \text{or}$$

$$x = 16 \quad \text{or}$$

$$x-7 = -9$$

$$x = -2$$

$$|2x-1| = 11$$

$$2x-1 = 11 \quad \text{or}$$

$$2x = 12$$

$$2x-1 = -11$$

$$2x = -10$$

$$x = 6 \quad \text{or} \quad x = -5$$

Solve

$$3|2x-1| - 5 = 4 \quad \rightarrow \quad |2x-1| = 0$$

$$\text{Think: } 3a - 5 = 4$$

$$\frac{3a}{3} = \frac{9}{3}$$

$$a = 3$$

$$3|2x-1| - 5 = 4$$

$$\cancel{3}|2x-1| = \frac{9}{3}$$

$$|2x-1| = 3$$

$$2x-1 = 3 \quad \text{or} \quad 2x-1 = -3$$

$$4|t+9| - 5 = 19$$