

**Geometry 9/20**

**Warm Up IXL**  
**6th Grade**  
**Z.11**

# 0-6 Linear Inequalities





I can use algebra to solve linear inequalities

Inequality

an equation that contains the symbol

$<$ ,  $>$ ,  $\leq$ ,  $\geq$ , or  $\neq$

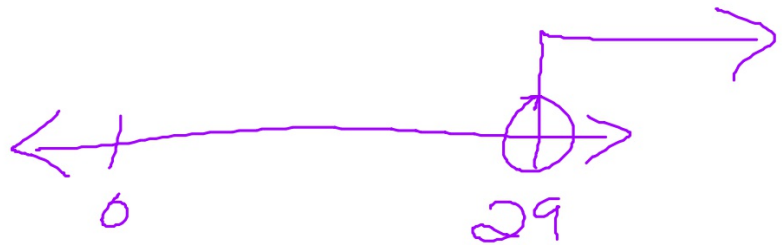
*Less than, Greater than, Less than or equal to,  
Greater than or equal to, not equal to*

$<$	$>$	$\leq$	$\geq$	$\neq$
less than	greater than	less than or equal to	greater than or equal to	Not equal to
				

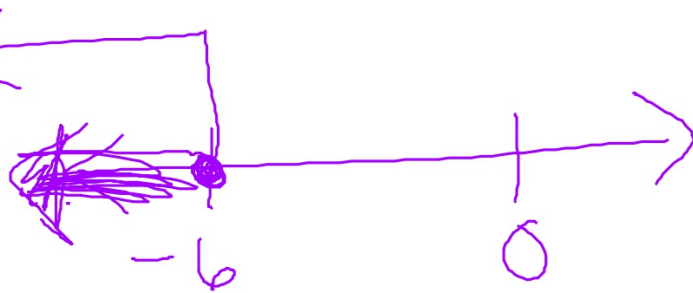
I can use algebra to solve linear inequalities

Ex. 1 Solve and graph each inequality.

$$\begin{array}{r} \text{A. } x - 17 > 12 \\ \quad +17 \quad +17 \\ \hline x > 29 \end{array}$$



$$\begin{array}{r} \text{B. } y + 11 \leq 5 \\ \quad -11 \quad -11 \\ \hline y \leq -6 \end{array}$$

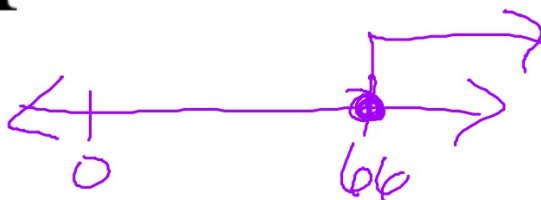


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Ex. 2 Solve and graph each inequality.

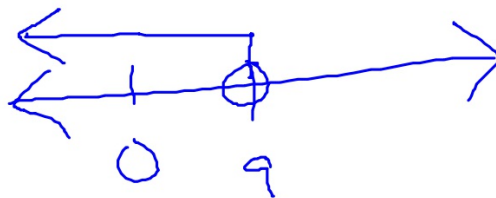
A.  $\frac{t}{6} \geq 11.6$

$t \geq 66$



B.  $\frac{8p}{8} < \frac{72}{8}$

$p < 9$



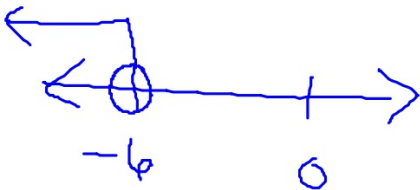
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Recall: When you multiply or divide by a negative number you must switch the direction of the inequality.

Ex. 3 Solve and graph each inequality.

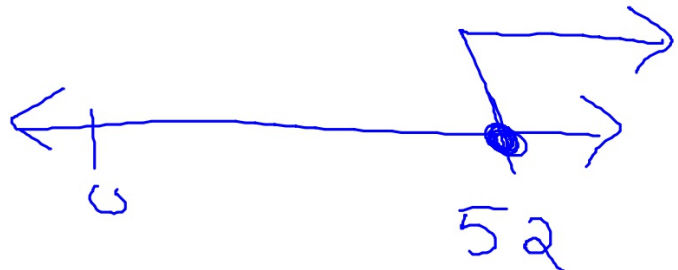
$$A. \frac{-5c}{-5} > \frac{30}{-5}$$

$$c < -6$$



$$B. \frac{d}{13} \leq -4 \cdot -13$$

$$d \geq 52$$



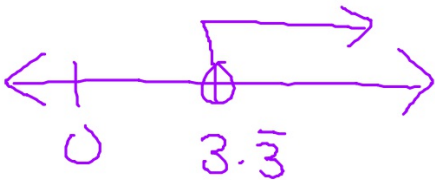
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Ex. 4 Solve and graph each inequality.

$$\text{A. } -6a + 13 < -7$$

$$\frac{-6a}{-6} < \frac{-20}{-6}$$

$$a > 3.\bar{3}$$



$$\text{B. } 4z + 7 \geq 8z - 1$$

$$\frac{4z}{-8z} \geq \frac{8z - 8}{-8z}$$

$$\frac{-4z}{-4} \geq \frac{-8}{-4}$$

$$z \leq 2$$



I can use algebra to solve linear inequalities

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Alg 1  
9/20/16  
Pg P14 #2-24ev

Hmwk  
Pg P14  
#2-24ev