4-9 Solving Inequalities by Multiplying and Dividing.

(One Step Inequalities)

Division Property of Inequality

Divide both sides of the equation by the same number to solve.

Flip the sign

$-3y \leq -27$

$\frac{-3y}{-3} \leq \frac{-27}{-3}$

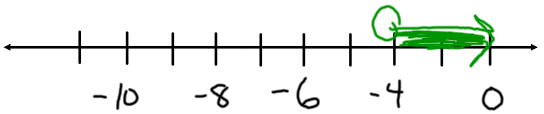
$y \geq 9$

Reverse the sign!

$-4p < 36$

$\frac{-4p}{-4} > \frac{36}{-4}$

$p > -4$

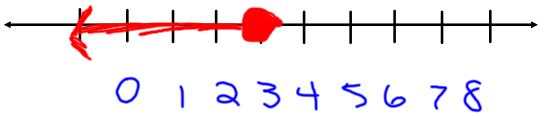


$-8m \geq -24$

$\frac{-8m}{-8} \leq \frac{-24}{-8}$

$m \leq 3$

Reverse the sign



Your class is taking a trip to a museum that is 190 miles away. The bus can travel at 55 miles per hour. At least how many hours should your class plan for the trip to the museum?

Words: 55 times, # of hrs, is at least, total miles

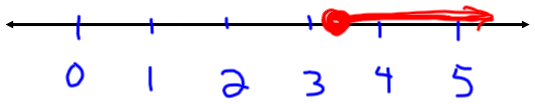
let h = the number of hours

expression $55 * h \geq 190$

$\frac{55}{55} \qquad \frac{190}{55}$

$55\overline{)190}$ 3, 165, 25

$h \geq 3h\ 25m$

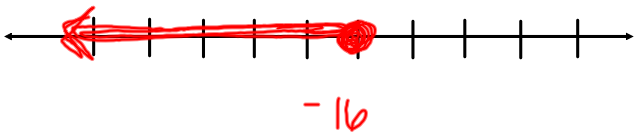


Multiplication Property of Inequality

You can multiply both side of the inequality with the same value to solve.

Solve $\frac{y}{-8} \geq 2$ (-8) (-8) Reverse the Sign!

$y \leq -16$



Solve $\frac{k}{-5} < -4$ (-5) (-5)

$k > 20$