# Solving Inequalities Using Multiplication or Division

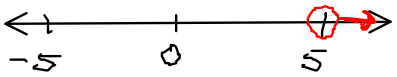
| | | |
|---|---|---|
| > | "Greater Than" | Shade to the right, open circle |
| ≥ | "Greater Than or Equal To" / "At Least" | Shade to the right, closed circle |
| < | "Less Than" | Shade to the left, open circle |
| ≤ | "Less Than or Equal To" / "At Most" | Shade to the left, closed circle |

Directions: Solve each inequality and graph the solution.

1. $3x > 15$

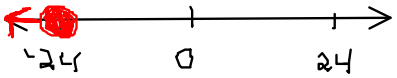
$\frac{3}{3} \quad \frac{3}{3}$

$x > 5$




2. $\frac{a}{6} \leq -4 \cdot 6$

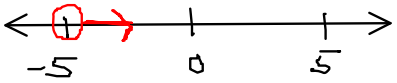
$a \leq -24$




3. $\frac{-55}{11} < \frac{11x}{11}$

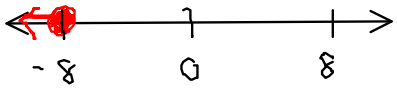
$-5 < x$

$x > -5$



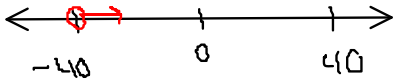

4. $\frac{-4y}{-4} \geq \frac{32}{-4}$

$y \leq -8$



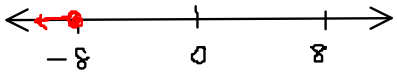

5. $-\frac{m}{8} < 5$

$(-8) \cdot \frac{m}{-8} < 5(-8)$



$m > -40$

6. $1\frac{1}{2}h \leq -12$




$\frac{3}{2}h \leq -12$

$\div \frac{3}{2} \qquad \div \frac{3}{2}$

$h \leq -8$

$-12 \div \frac{3}{2} = \frac{-12}{1} \times \frac{2}{3} = \frac{-8}{1} = -8$