# 6 - 2
# Solving Inequalities by Multiplication and Division

** x/÷ by negative → symbol flips

**

**Ex:** $\frac{b}{7} \geq 25 \cdot 7$

$b \geq 175$

**Ex:** $-\frac{2}{5}p < \frac{12}{1} \cdot \frac{-5}{2}$

$-\frac{60}{2}$

$p > -30$

Ex: $\frac{5x}{5} \leq \frac{-100}{5}$

$$x \leq -20$$

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$\frac{9}{-3} > \frac{-3x}{-3}$

$-3 < x$

$$x > -3$$

**Ex: Write an inequality, then solve.**

**"One-fourth of a number is less than - 7"**

**Ex:** $14h > 68$

**Ex:** $-5t \geq 275$

**Ex: Which inequality does not have the solution $\{ y \mid y \leq -5 \}$ ?**

**A.** $-7y \geq 35$

**B.** $2y \leq -10$

**C.** $\frac{7}{5} y \geq -7$

**D.** $\frac{y}{-4} \geq \frac{5}{4}$

Homework:

p. 329 #20 - 34 even

and 6-1 WS # 1-4, 5, 7, 9