

# Reteaching 2-10

## Solving One-Step Inequalities by Multiplying or Dividing

Solve  $5x < -40$ .

$$5x < -40$$

Since 5 and  $x$  are multiplied, use a division property of inequality and divide both sides by 5.

$$5x < -40$$

$$\frac{5x}{5} < \frac{-40}{5}$$

$$x < -8$$

Solve  $\frac{x}{-4} \geq 3$ .

Since  $x$  is divided by  $-4$ , use a multiplication property of inequality and multiply both sides by  $-4$ .

When you multiply both sides of an inequality by a negative number, you must reverse the direction of the inequality symbol.

$$\frac{x}{-4} \geq 3$$

$$(-4)\frac{x}{-4} \leq (-4)3$$

$$x \leq -12$$

### Solve each inequality.

1.  $7n \geq 42$

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2.  $-3m < 27$

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3.  $\frac{x}{3} > 7$

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4.  $\frac{y}{4} \leq 8$

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5.  $\frac{q}{-2} < 5$

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6.  $-n \geq 2$

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7.  $27 \leq 3k$

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8.  $6 \geq \frac{d}{7}$

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9.  $\frac{r}{-9} < 12$

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10.  $-13 < \frac{h}{-3}$

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11.  $-15 \geq -3z$

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12.  $2f \leq -27$

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