

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

One-Step Multiplication and Division Inequalities

Solve each inequality. Show your work and graph the solution.

1. $-3r \leq -24$



6. $-9 < \frac{q}{2}$



2. $\frac{p}{9} \geq -6$



7. $-189 > -9r$



3. $4x \leq 64$



8. $6 < \frac{m}{2}$



4. $\frac{y}{-6} \geq 10$



9. $88 < 4r$



5. $9y > 27$



10. $-3 > \frac{p}{-9}$



One-Step Multiplication and Division Inequalities

Answer key

Solve each inequality. Show your work and graph the solution.

1. $-3r \leq -24$

$$r \geq 8$$

Divide by a negative coefficient and reverse the inequality direction.



2. $\frac{p}{9} \geq -6$

$$\frac{1}{9}p \geq -6$$

Simplify each side.

$$p \geq -54$$

Divide by a positive coefficient; the direction stays the same.



3. $4x \leq 64$

$$x \leq 16$$

Divide by a positive coefficient; the direction stays the same.



4. $\frac{y}{-6} \geq 10$

$$-\frac{1}{6}y \geq 10$$

Simplify each side.

$$y \leq -60$$

Divide by a negative coefficient and reverse the inequality direction.



5. $9y > 27$

$$y > 3$$

Divide by a positive coefficient; the direction stays the same.



One-Step Multiplication and Division Inequalities

Answer key

Solve each inequality. Show your work and graph the solution.

6. $-9 < \frac{q}{2}$

$$-9 < \frac{1}{2}q$$

Simplify each side.

$$-\frac{1}{2}q - 9 < 0$$

Move variable terms to one side.

$$-\frac{1}{2}q < 9$$

Move constants to the other side.

$$q > -18$$

Divide by a negative coefficient and reverse the inequality direction.



7. $-189 > -9r$

$$9r - 189 > 0$$

Move variable terms to one side.

$$9r > 189$$

Move constants to the other side.

$$r > 21$$

Divide by a positive coefficient; the direction stays the same.



8. $6 < \frac{m}{2}$

$$6 < \frac{1}{2}m$$

Simplify each side.

$$-\frac{1}{2}m + 6 < 0$$

Move variable terms to one side.

$$-\frac{1}{2}m < -6$$

Move constants to the other side.

$$m > 12$$

Divide by a negative coefficient and reverse the inequality direction.



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Answer key

Solve each inequality. Show your work and graph the solution.

9. $88 < 4r$

$$-4 \quad r + 88 < 0$$

Move variable terms to one side.

$$-4 \quad r < -88$$

Move constants to the other side.

$$r > 22$$

Divide by a negative coefficient and reverse the inequality direction.



10. $-3 > \frac{p}{-9}$

$$-3 > -\frac{1}{9}p$$

Simplify each side.

$$\frac{1}{9}p - 3 > 0$$

Move variable terms to one side.

$$\frac{1}{9}p > 3$$

Move constants to the other side.

$$p > 27$$

Divide by a positive coefficient; the direction stays the same.

