

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

One-Step All-Operations Inequalities

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

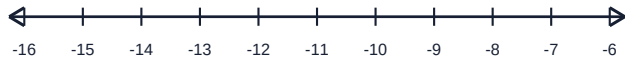
1. $r + 4 \leq 30$



6. $q - (-12) \leq -3$



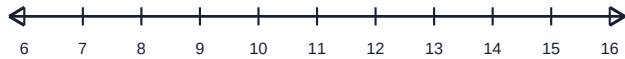
2. $n - 2 > -13$



7. $-36 < -4z$



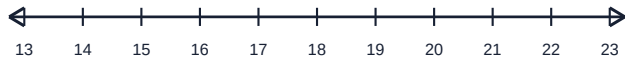
3. $9x > 99$



8. $-11 > \frac{y}{5}$



4. $\frac{n}{-3} \geq -6$



9. $y + 6 < 21$



5. $r + (-10) \geq 14$



10. $q - 6 < -12$



Math Sheet

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One-Step All-Operations Inequalities

Answer key

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

1. $r + 4 \leq 30$

$$r \leq 26$$

Move constants to the other side.



2. $n - 2 > -13$

$$n > -11$$

Move constants to the other side.



3. $9x > 99$

$$x > 11$$

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



4. $\frac{n}{-3} \geq -6$

$$-\frac{1}{3}n \geq -6$$

Simplify each side.

$$n \leq 18$$

Divide by a negative coefficient and reverse the inequality direction.



5. $r + (-10) \geq 14$

$$r - 10 \geq 14$$

Simplify each side.

$$r \geq 24$$

Move constants to the other side.



6. $q - (-12) \leq -3$

$$q + 12 \leq -3$$

Simplify each side.

$$q \leq -15$$

Move constants to the other side.



One-Step All-Operations Inequalities

Answer key

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

7. $-36 < -4z$

$$4z - 36 < 0$$

Move variable terms to one side.

$$4z < 36$$

Move constants to the other side.

$$z < 9$$

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



8. $-11 > \frac{y}{5}$

$$-11 > \frac{1}{5}y$$

Simplify each side.

$$-\frac{1}{5}y - 11 > 0$$

Move variable terms to one side.

$$-\frac{1}{5}y > 11$$

Move constants to the other side.

$$y < -55$$

Divide by a negative coefficient and reverse the inequality direction.



9. $y + 6 < 21$

$$y < 15$$

Move constants to the other side.



10. $q - 6 < -12$

$$q < -6$$

Move constants to the other side.

