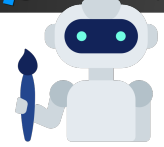


Name: \_\_\_\_\_



# Solving Inequalities (Two-Step)



**Reminder:** When solving inequalities, you have to reverse the direction of the inequality sign whenever you:

- Swap the positions of the left side of the inequality with the right side of the inequality.  
Example:  $4 < x \rightarrow x > 4$
- Multiply or divide both sides of the inequality by a **negative** number.  
Example:  $-2y \geq 8 \rightarrow y \leq -4$

**Directions:** Solve each inequality.

1.)  $4x + 6 > 26$

9.)  $7 + \frac{g}{3} > 24$

2.)  $2x - 3 \leq 19$

10.)  $-3(y - 7) \geq 21$

3.)  $\frac{y}{3} - 4 \geq -10$

11.)  $\frac{x + 1}{4} < 6$

4.)  $-3(x + 1) > -18$

12.)  $-11x - 4 \geq -15$

5.)  $4(x + 4) > 64$

13.)  $\frac{b - 9}{15} \geq 1$

6.)  $4 + \frac{x}{3} \leq 6$

14.)  $4 > \frac{x}{7} + 1$

7.)  $\frac{x}{5} + 6 < 2$

15.)  $-4x - 5 \geq -25$

8.)  $-4a + 1 \leq 13$

16.)  $\frac{m - 3}{2} < 5$

## ANSWER KEY

1.)  $4x + 6 > 26$

$x > 5$

2.)  $2x - 3 \leq 19$

$x \leq 11$

3.)  $\frac{y}{3} - 4 \geq -10$

$y \geq -2$

4.)  $-3(x + 1) > -18$

$x < 5$

5.)  $4(x + 4) > 64$

$x > 12$

6.)  $4 + \frac{x}{3} \leq 6$

$x \leq 6$

7.)  $\frac{x}{5} + 6 < 2$

$x < -20$

8.)  $-4a + 1 \leq 13$

$a \geq -3$

9.)  $7 + \frac{g}{3} > 24$

$g > 51$

10.)  $-3(y - 7) \geq 21$

$y \leq 0$

11.)  $\frac{x + 1}{4} < 6$

$x < 23$

12.)  $-11x - 4 \geq -15$

$x \leq 1$

13.)  $\frac{b - 9}{15} \geq 1$

$b \geq 24$

14.)  $4 > \frac{x}{7} + 1$

$x < 21$

15.)  $-4x - 5 \geq -25$

$x \leq 5$

16.)  $\frac{m - 3}{2} < 5$

$m < 13$