

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

Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Inequalities Review

### Section I. Determine which Value is greater than, less than, or equal to

1.  $12 > 5$

2.  $-17 < -16$

3.  $\frac{4}{10} < .6$

4.  $-27 < -8$

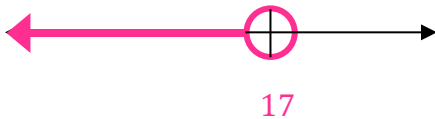
5.  $-.8\overline{33} = -\frac{5}{6}$

6.  $\frac{17}{8} = \frac{34}{16}$

### Section II. Solve and Graph the Inequality

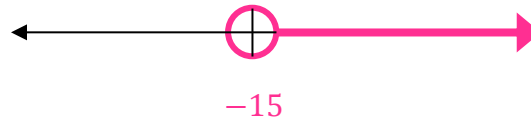
7.  $-11 + k < 6$

$$k < 17$$



8.  $m - 8 > -23$

$$-15 < m$$



9.  $7j \geq -42$

$$-6 \leq j$$



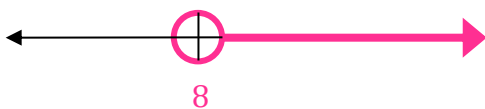
10.  $-8f \leq 56$

$$-7 \leq f$$



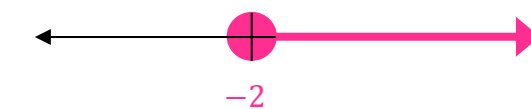
11.  $4x - 9 > 23$

$$8 < x$$



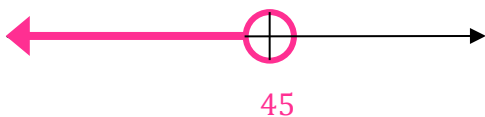
12.  $15 - 6y \leq 27$

$$-2 \leq y$$



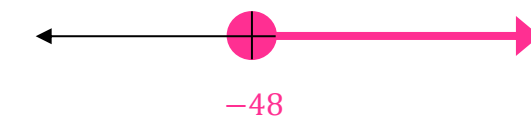
13.  $\frac{w}{9} < 5$

$$w < 45$$



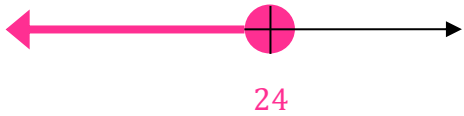
14.  $\frac{h}{-8} \leq 6$

$$-48 \leq h$$



15.  $\frac{a}{-3} + 15 \geq 7$

$a \leq 24$



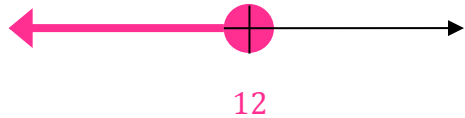
16.  $\frac{x-9}{4} > -7$

$-19 < x$



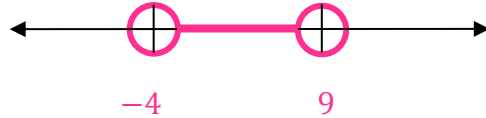
17.  $5(x - 6) \leq 30$

$x \leq 12$



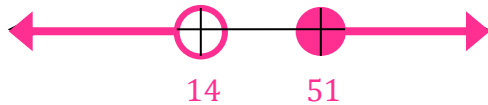
18.  $-12 < 3x < 27$

$-4 < x < 9$



19.  $\frac{x-6}{4} < 2$  or  $\frac{2}{3}x - 8 \geq 26$

$x < 14$  or  $51 \leq x$



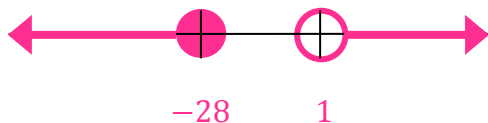
20.  $-15 < -2x - 9 < 21$

$-15 < x < 3$



21.  $8 - x < 7$  or  $\frac{x}{4} \leq -7$

$1 < x$  or  $x \leq -28$



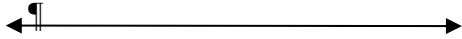
22.  $|x - 13| > 8$

$x < 5$  or  $21 < x$



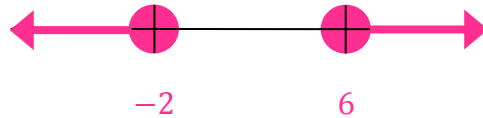
23.  $|-3x + 12| \leq -10$

*not possible, an absolute value cannot be less than a negative number*



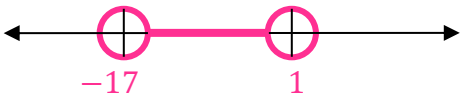
24.  $\left|1 - \frac{x}{2}\right| \geq 2$

$x \leq -2 \text{ or } 6 \leq x$



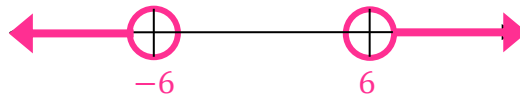
25.  $|x + 8| - 3 < 6$

$-17 < x < 1$



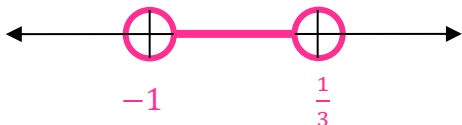
26.  $7\left|\frac{2}{3}x\right| > 28$

$x < -6 \text{ or } 6 < x$



27.  $4 - |3x + 1| > 2$

$-1 < x < \frac{1}{3}$



28.  $7 - 3|4x - 7| \leq 4$

$x \leq \frac{3}{2} \text{ or } 2 \leq x$


**Section III. Write an Inequality for the given graph**


$-2 < x$



$x < 6$



$|x + 2| \leq 3$



$|2x - 5| > 3$