

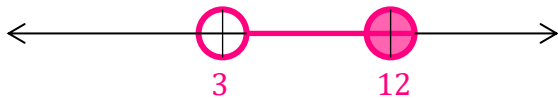
Name: \_\_\_\_\_

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

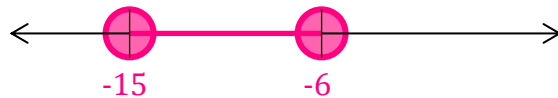
## Compound Inequalities Answers

### Section I. Graph the compound inequality

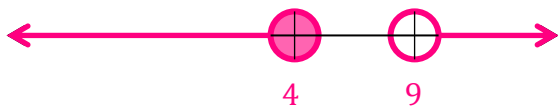
1.  $3 < x \leq 12$



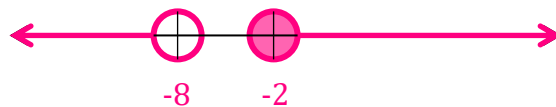
2.  $-15 \leq x \leq -6$



3.  $x \leq 4$  or  $x > 9$



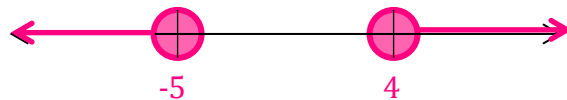
4.  $x < -8$  or  $-2 \leq x$



5.  $-15 \leq x < 7$



6.  $x \leq -5$  or  $4 \leq x$



### Section II. Solve for the variable and graph the solution

7.  $-13 \leq 2 + x < 12$

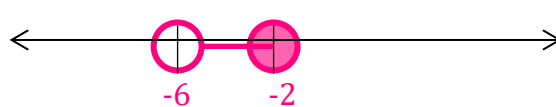
$-15 \leq x < 10$



8.  $6 < -3x < 18$

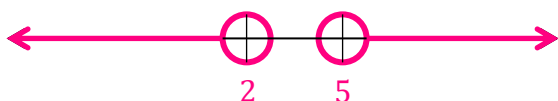
$-2 \geq x > -6$

$-6 < x \leq -2$



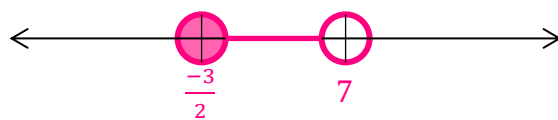
9.  $8x - 11 < 5$  or  $4x - 7 > 13$

$x < 2$  or  $x > 5$



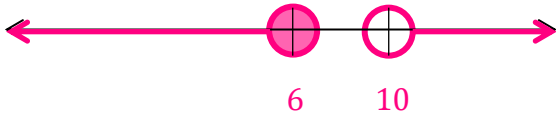
10.  $-8 \leq 2x - 5 < 9$

$-\frac{3}{2} \leq x < 7$



11.  $x - 2 > 8$  or  $x + 1 \leq 7$

$x > 10$  or  $x \leq 6$



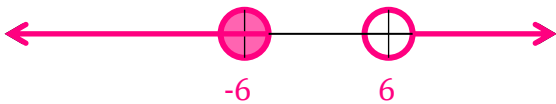
12.  $-12 < 2 - x \leq 12$

$-7 < x \leq 10$



13.  $-\frac{1}{2}x < -3$  or  $2x \leq -12$

$x > 6$  or  $x \leq -6$



14.  $-5 \leq -3x - 4 \leq 17$

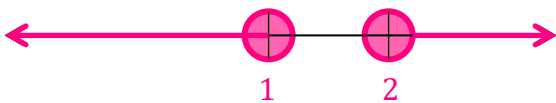
$\frac{1}{3} \geq x \geq -7$

$-7 \leq x \leq \frac{1}{3}$



15.  $21 \leq 6x + 9$  or  $9x - 5 \leq 4$

$2 \leq x$  or  $x \leq 1$



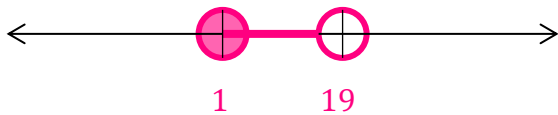
16.  $-12 < 2(x + 4) < 8$

$-10 < x < 0$



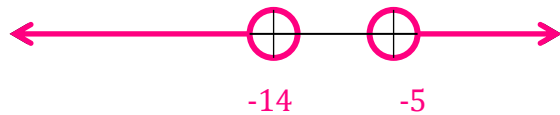
17.  $-1 \leq \frac{2x-5}{3} < 11$

$1 \leq x < 19$



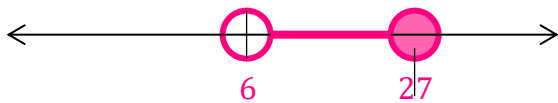
18.  $-3(x+1) < 12$  or  $\frac{(x-2)}{-4} > 4$

$x < -5$  or  $x > 18$



19.  $-4 < \frac{2}{3}x - 8 \leq 10$

$6 < x \leq 27$



20.  $-6 < \frac{-4}{5}x + 6 < 24$

$15 > x > \frac{-45}{2}$

$\frac{-45}{2} < x < 15$

