

Name: _____

Period: _____ Date: _____

Compound Inequalities **Answers**

Solve for the variable and graph the solution on the number line.

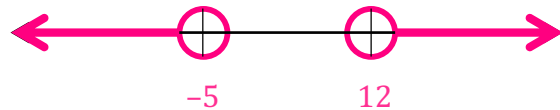
1. $-3 < x + 5 < 14$

$-8 < x < 9$



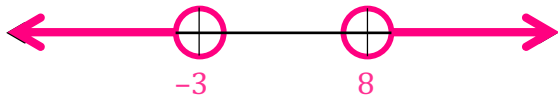
2. $y - 2 < -7$ or $\frac{y}{-3} < -4$

$y < -5$ or $12 < y$



3. $-5m > 15$ or $m - 11 > -3$

$m < -3$ or $8 < m$



4. $-7 < \frac{h}{4} < 9$

$-28 < h < 36$



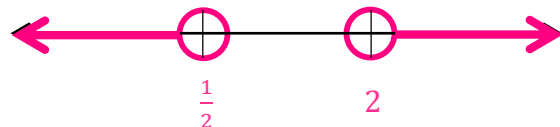
5. $5 - k < 1$ or $k + 2 \geq 3k - 2$

$4 < k$ or $k \leq 2$



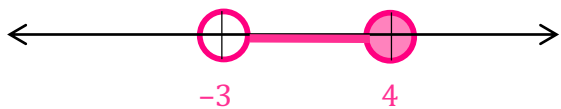
6. $5 + 2w < 6$ or $7w - 3 > 11$

$w < \frac{1}{2}$ or $2 < w$



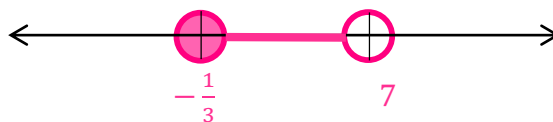
7. $-15 < 5q \leq 20$

$$-3 < q \leq 4$$



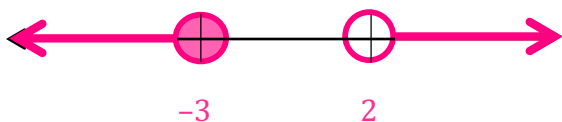
8. $-5 \leq 3a - 4 < 17$

$$-\frac{1}{3} \leq a < 7$$



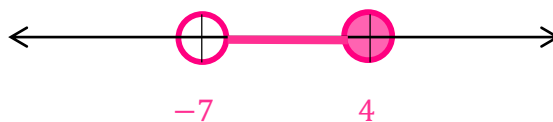
9. $7p - 1 > p + 11$ or $-11p + 8 \geq 41$

$$2 < p \text{ or } p \leq -3$$



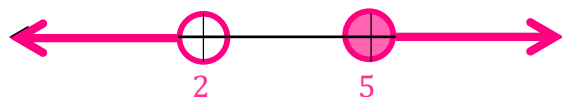
10. $-14 < 3z + 7 \leq 19$

$$-7 < z \leq 4$$



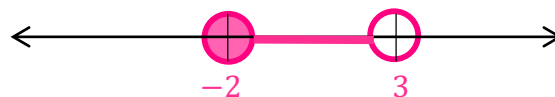
11. $\frac{1}{3}w - \frac{1}{6} < \frac{1}{2}$ or $\frac{3}{5}w \geq \frac{w}{5} + 2$

$$w < 2 \text{ or } 5 \leq w$$



12. $-35 \leq 24x + 13 < 85$

$$-2 \leq x < 3$$



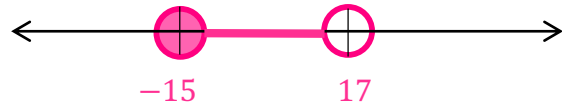
13. $-27 \leq -3(m + 5) < 18$

$$-11 < m \leq 4$$



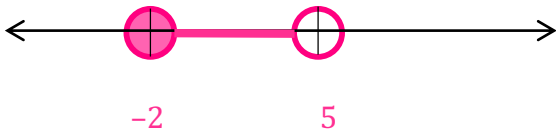
14. $-6 \leq \frac{k-9}{4} < 2$

$$-15 \leq k < 17$$



15. $-5 < 2(2 - f) + 1 \leq 9$

$$-2 \leq f < 5$$



16. $\frac{x-3}{-5} < x - 1$ or $\frac{x-6}{3} \geq x + 4$

$$\frac{4}{3} < x \text{ or } x \leq -9$$

