

Solving Compound Inequalities – 1 variable

Procedure:

1. Determine if the compound inequality is connected by “and” or “or”.
2. Solve each inequality
3. If compound inequality is connected by an “and”, then the solution must satisfy each statement. The solution is where the graphs of each overlap.
4. If the compound inequality is connected by an “or” statement, then the solution can satisfy either or both statements. The solution is the graph of both solutions.

1. $12 < 2x \leq 16$

2. $x < 5$ and $2x > 3$

3. $x + 1 < 3$ or $2x - 1 \geq 7$

4. $3x + 2 > 20$ or $2x + 5 < -3$

5. $-3 \leq 2x + 1 < 9$

6. $2x - 5 > 1$ and $3x + 2 \geq 14$

7. $2x - 5 > 1$ or $3x + 2 \geq 14$

8. $-10 \leq 2x + 3 \leq 5$

