

Simultaneous Equations, Inequalities and Quadratic Equations

Year 10 · Algebra · y10-alg-solve-linear

Name: _____

Date: _____

Class: _____

Score: ____ / ____

Instructions

Answer every question in Practice. Try the Challenge section once Practice is complete. 10 questions in total.

Practice

1. Solve: $3x + 2y = 16$ and $x - y = 2$. Give x and y separated by a comma.

2. Solve the inequality: $x + 3 > 7$.

3. Solve the inequality: $2x - 5 \leq 9$.

4. Solve: $(x - 3)(x + 5) = 0$. Give the smaller value first, separated by a comma.

5. Solve the inequality: $-2x < 8$. Remember to flip the inequality sign when dividing by a negative number.

6. Work out the answer to: $2x + 3y = 16$ and $x + y = 6$. Give x and y separated by a comma.

7. When you multiply or divide both sides of an inequality by a negative number, flip the inequality sign. Solve: $-3x \geq 12$.

8. Solve the inequality: $5 - x < 2$.

Challenge

1. Find the solution to: $x^2 - 5x + 6 = 0$ by factorising. Give the smaller value first, separated by a comma.

2. Solve the simultaneous equations: $3x - 2y = 12$ and $5x + 2y = 20$. Give x and y separated by a comma.
