

# A-Level Starter Activity



## Topic: Solving Linear Simultaneous Equations

Chapter Reference: Pure 1, Chapter 3

**8  
minutes**

1. Solve the following simultaneous equations,

$$2y = x + 6$$

$$y = 2x - 3$$

**(3)**

2. Solve the following simultaneous equations,

$$3x - 2y = 9$$

$$x + 4y = 10$$

**(3)**

3. Solve the following simultaneous equations,

$$5x + 4y = 3$$

$$x - 2y = 2$$

**(3)**

## Solutions

1.

|   |           |
|---|-----------|
| $2y = x + 6$<br>$y = 2x - 3$                                    | <b>M1</b> |
| $2(2x - 3) = x + 6$<br>$4x - 6 = x + 6$<br>$3x = 12$<br>$x = 4$ | <b>M1</b> |
| $y = 2(4) - 3$<br>$y = 5$                                       | <b>M1</b> |

2.

|   |           |
|---|-----------|
| $3x - 2y = 9$<br>$x + 4y = 10$  | <b>M1</b> |
| $x = 10 - 4y$<br>$3(10 - 4y) - 2y = 9$<br>$30 - 14y = 9$<br>$14y = 21$<br>$y = 1.5$ | <b>M1</b> |
| $x + 4(1.5) = 10$<br>$x = 4$  | <b>M1</b> |

3.

|   |           |
|---|-----------|
| $5x + 4y = 3$<br>$x - 2y = 2$   | <b>M1</b> |
| $x = 2 + 2y$<br>$5(2 + 2y) + 4y = 3$<br>$10 + 10y + 4y = 3$<br>$14y = -7$<br>$y = -\frac{1}{2}$ | <b>M1</b> |
| $x = 2y + 2$<br>$x = (2 \times -\frac{1}{2}) + 2$<br>$x = 1$                                    | <b>M1</b> |

