

Solving Simultaneous Equations – No Multiplying

1)

$$2x + 3y = 18$$

$$6x + 3y = 30$$

2)

$$2x + 3y = 18$$

$$6x - 3y = 30$$

3)

$$2x + y = 18$$

$$6x - y = 30$$

4)

$$2x - y = 18$$

$$6x - y = 30$$

5)

$$y + 2x = 18$$

$$y + 6x = 30$$

$$\begin{array}{l} 6. \quad 2l + 3m = 13 \\ \quad \quad 3l + 4m = 17 \end{array}$$

$$\begin{array}{l} 7. \quad 4y + 6x = 18 \\ \quad \quad 3y - 2x = 33 \end{array}$$

$$\begin{array}{l} 8. \quad 6a + 5b = 23 \\ \quad \quad 5a + 3b = 18 \end{array}$$

$$\begin{array}{l} 9. \quad 5x - 3y = 11 \\ \quad \quad 3x - y = 9 \end{array}$$

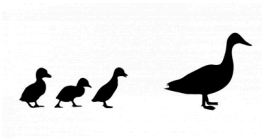
$$\begin{array}{l} 10. \quad 5x - y = 19 \\ \quad \quad 4x + 3y = 57 \end{array}$$

$$7) \quad \begin{aligned} 4x + 3y &= 14 \\ 5x + 7y &= 11 \end{aligned}$$

$$8) \quad \begin{aligned} 6x - 4y &= 21 \\ 4x + 4y &= 24 \end{aligned}$$

$$9) \quad \begin{aligned} x + 3y &= 27 \\ xy &= 24 \end{aligned}$$

$$10) \quad \begin{aligned} x + y^2 &= 32 \\ x + 3y &= 22 \end{aligned}$$



Examples

Solve the following pairs of simultaneous equations by substitution:

$$\begin{aligned} \text{a) } y &= x + 4 \\ x + y &= 10 \end{aligned}$$

$$\begin{aligned} \text{c) } y &= x + 2 \\ 2x - y &= 14 \end{aligned}$$

$$\begin{aligned} \text{e) } y &= x - 3 \\ 2x + 3y &= 16 \end{aligned}$$

$$\begin{aligned} \text{b) } x + y &= 10 \\ x &= y - 4 \end{aligned}$$

$$\begin{aligned} \text{d) } y &= x - 7 \\ 3x - y &= 13 \end{aligned}$$

$$\begin{aligned} \text{f) } y &= 2x - 5 \\ 7x - 2y &= 16 \end{aligned}$$