

Lesson 3

GCSE Mathematics Simultaneous Equations I

3.1 Mixed Combination Problems

Solve these pairs of simultaneous equations.

- Subtract the equations when the identical terms have the same sign.
- Add the equations when the identical terms have opposite signs.

3.2 Exercise

Marks Available : 18

Question 1

$$\left. \begin{array}{l} 4x + 3y = 41 \\ 2x + 3y = 25 \end{array} \right\}$$

[3 marks]

Question 2

$$\left. \begin{array}{l} 6x + 4y = 16 \\ 2x - 4y = 16 \end{array} \right\}$$

[3 marks]

Question 3

$$\left. \begin{array}{l} 5y - 3x = 7 \\ 2y + 3x = 28 \end{array} \right\}$$

[3 marks]

Question 4

$$\left. \begin{array}{l} y + x = -1 \\ -y + x = -5 \end{array} \right\}$$

[3 marks]

Question 5

$$\left. \begin{array}{l} 4y - 5x = 17 \\ -2y + 5x = -11 \end{array} \right\}$$

[3 marks]

Question 6

$$\left. \begin{array}{l} -3x - 4y = 10 \\ -2x + 4y = -20 \end{array} \right\}$$

[3 marks]

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Teachers may obtain detailed worked solutions to the exercises by email from mhh@shrewsbury.org.uk