

## Lesson 9

## GCSE Mathematics Simultaneous Equations I

### 9.1 Adjust and Decide: Add or Subtract ?

To solve these pairs of simultaneous equations;

#### **EITHER**

FIRST : Change one of the pair to obtain identical terms but with opposite signs.

SECOND : Eliminate the identical terms by **ADDITION**.

#### **OR**

FIRST : Change one of the pair to obtain identical terms with same signs.

SECOND : Eliminate the identical terms by **SUBTRACTION**.

### 9.2 Exercise

Marks Available : 32

#### Question 1

$$\left. \begin{array}{l} 3x - 4y = 26 \\ 6x + 5y = 26 \end{array} \right\}$$

[ 4 marks ]

#### Question 2

$$\left. \begin{array}{l} 3x + 2y = 11 \\ 4x - y = 11 \end{array} \right\}$$

[ 4 marks ]

**Question 3**

$$\left. \begin{array}{l} 4x + 3y = 37 \\ 2x + y = 17 \end{array} \right\}$$

[ 4 marks ]

**Question 4**

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

[ 4 marks ]

**Question 5**

$$\left. \begin{array}{l} 2x + 3y = 19 \\ 6x + 2y = 22 \end{array} \right\}$$

[ 4 marks ]

**Question 6**

$$\left. \begin{array}{l} 5x - 2y = 14 \\ 3x - y = 9 \end{array} \right\}$$

[ 4 marks ]

**Question 7**

$$\left. \begin{array}{l} 10x - y = 3 \\ 3x + 2y = 17 \end{array} \right\}$$

[ 4 marks ]

**Question 8**

$$\left. \begin{array}{l} 2x + 5y = 9 \\ x + 2y = 4 \end{array} \right\}$$

[ 4 marks ]

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