

## Lesson 7

### GCSE Mathematics Simultaneous Equations I

#### 7.1 Adjust and Add

To solve these pairs of simultaneous equations;

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

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

#### 7.2 Exercise

Marks Available : 36

##### Question 1

$$\left. \begin{array}{l} 4x - 2y = 14 \\ 3x + 4y = 5 \end{array} \right\}$$

[ 4 marks ]

##### Question 2

$$\left. \begin{array}{l} 7x - y = 5 \\ 8x + 3y = 14 \end{array} \right\}$$

[ 4 marks ]

##### Question 3

$$\left. \begin{array}{l} 11x - 4y = 41 \\ 3x + y = 7 \end{array} \right\}$$

[ 4 marks ]

**Question 4**

$$\left. \begin{array}{l} 6x + 4y = 28 \\ -2x + 3y = 8 \end{array} \right\}$$

[ 4 marks ]

**Question 5**

$$\left. \begin{array}{l} 12x + y = 27 \\ 5x - 2y = 4 \end{array} \right\}$$

[ 4 marks ]

**Question 6**

$$\left. \begin{array}{l} 10y - 5x = 85 \\ 11y + 10x = -108 \end{array} \right\}$$

[ 4 marks ]

**Question 7**

$$\left. \begin{array}{l} 8y + 9x = 21 \\ 5y - 3x = -30 \end{array} \right\}$$

[ 4 marks ]

**Question 8**

$$\left. \begin{array}{l} 5y - 2x = 46 \\ 4y + x = 29 \end{array} \right\}$$

[ 4 marks ]

**Question 9**

$$\left. \begin{array}{l} 20y + 7x = 67 \\ -10y + 9x = -21 \end{array} \right\}$$

[ 4 marks ]

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