## Maths with Melissa

## **Simultaneous Equations with Different Signs: Worksheet**

Solve each pair of simultaneous equations. Show all your working. Answers may be integers or fractions.

$$\begin{cases} 2x + 3y = 7 \\ 4x - 3y = 5 \end{cases}$$

$$\begin{cases} 5x - 2y = 8\\ 2x + 2y = 10 \end{cases}$$

$$\begin{cases} 7x + y = 20 \\ 4x - y = 5 \end{cases}$$

$$\begin{cases} 3x - 4y = 2 \\ 5x + 4y = 18 \end{cases}$$

$$\begin{cases} 6x + 2y = 16 \\ 3x - 2y = 2 \end{cases}$$

$$\begin{cases} 8x - 5y = 9\\ 2x + 5y = 11 \end{cases}$$

$$\begin{cases} 4x + 7y = 13 \\ 4x - 3y = 3 \end{cases}$$

$$\begin{cases} 9x - 2y = 19 \\ 3x + 2y = 5 \end{cases}$$

$$\begin{cases} 2x - 5y = -11 \\ 3x + 5y = 4 \end{cases}$$

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## **Answer Key**

$$x = 2, y = 1$$

$$x = \frac{18}{7}, y = \frac{17}{7}$$

$$x = \frac{25}{11}, y = \frac{45}{11}$$

$$x = 2, y = 3$$

$$x = 2, y = 2$$

$$x = 2, y = 1$$

$$x = 2, y = \frac{7}{5}$$

$$x = 2$$
,  $y = -1/2$ 

$$x = -7/5$$
,  $y = 41/25$