



Simultaneous Equations – Questions

Q1) Solve the following simultaneous equations.

a) $3x - y = 1$

$$x + y = 1$$

b) $2x + y = 7$

$$x + y = 4$$

c) $5x - 2y = 13$

$$3x + 2y = 3$$

Q2) Solve the following simultaneous equations.

a) $x + 3y = 10$

$$2x + 5y = 18$$

b) $2x + y = 10$

$$-x + 2y = 9$$

c) $5x - 4y = 24$

$$2x = y + 9$$

Q3) Use simultaneous equations to solve the following.

a) David and Jenny are at a café with a group of friends. David buys 2 cups of coffee and 3 cups of tea at a cost of £9.75. Jenny buys 1 cup of coffee and 4 cups of tea at a cost of £7.75. Work out the cost of a cup of coffee and a cup of tea.

b) 9 pens and 5 pencils cost £3.20, and 7 pens and 8 pencils cost £2.90. Find the unit price for each pen and pencil.



Simultaneous Equations – Solutions

Q1) a) $x = \frac{1}{2}$ $y = -\frac{1}{2}$

b) $x = 3$ $y = 1$

c) $x = 2$ $y = -\frac{3}{2}$

Q2) a) $x = 4$ $y = 2$

b) $x = 2.2$ $y = 5.6$

c) $x = 24$ $y = 24$

Q3) a) A cup of coffee costs £3.15 and a cup of tea costs £1.15.

b) A pen costs 30p and a pencil costs 10p