## Simultaneous Equations

**(same $y$ coefficient)**

Solve:

(a) $2x + y = 10$ $\quad x + y = 7$

(b) $4x + y = 9$ $\quad x + y = 3$

(c) $3x + 2y = 22$ $\quad x + 2y = 10$

(d) $5x + 2y = 17$ $\quad 3x + 2y = 11$

(a) $x = 3$, $y = 4$ (b) $x = 2$, $y = 1$

(c) $x = 6$, $y = 2$ (d) $x = 3$, $y = 1$

Solve:

(a) $2x + y = 14$ $\quad x - y = 1$

(b) $3x - y = 1$ $\quad x + y = 7$

(c) $3x + 2y = 25$ $\quad x - 2y = 3$

(d) $x - 3y = 2$ $\quad 2x + 3y = 22$

(a) $x = 5$, $y = 4$ (b) $x = 2$, $y = 5$

(c) $x = 7$, $y = 2$ (d) $x = 8$, $y = 2$

Solve:

(a) $5x + y = 5$ $\quad 3x + y = 7$

(b) $6x - y = 9$ $\quad 5x - y = 7$

(c) $4x + 2y = 22$ $\quad 3x - 2y = 6$

(d) $x - 3y = 4$ $\quad 4x + 3y = 1$

(e) $x + y = 0$ $\quad x - y = 6$

(f) $5x + 2y = 13$ $\quad x + 2y = 9$

(g) $3x + 2y = 16$ $\quad x - 2y = 4$

(h) $3x - y = 9$ $\quad 5x + y = 11$

(i) $4x + y = 8$ $\quad 2x + y = 7$

(j) $5x - 2y = 7$ $\quad 4x + 2y = 11$

(a) $x = -1$, $y = 10$ (b) $x = 2$, $y = 3$

(c) $x = 4$, $y = 3$ (d) $x = 1$, $y = -1$

(e) $x = 3$, $y = -3$ (f) $x = 1$, $y = 4$

(g) $x = 5$, $y = \frac{1}{2}$ (h) $x = \frac{5}{2}$, $y = -\frac{3}{2}$

(i) $x = \frac{1}{2}$, $y = 6$ (j) $x = 2$, $y = \frac{3}{2}$

David buys 5 biscuits and 3 cakes for £3.95. Samira buys 8 biscuits and 3 cakes for £5.15. Find the cost of one biscuit and the cost of one cake.

Biscuit = 40p

Cake = 65p

Jim is thinking of two numbers. When he adds them together he gets 20. When he subtracts one from the other he gets 30. What are Jim's two numbers?

25 and −5