Simultaneous Equations (different y coefficients)

Solve:

(a)
$$x + 2y = 7$$
 (b) $x + 3y = 11$
 $3x + y = 6$ $4x + y = 22$

(c)
$$3x - y = 7$$
 (d) $x - y = 5$
 $5x - 2y = 10$ $2x - 5y = 4$

(a)
$$\infty = 1$$

 $y = 3$

(c)
$$x=4$$
 (d) $x=7$ $y=5$ $y=2$

Solve:

(a)
$$x + y = 5$$
 (b) $7x - y = 1$ $3x - 2y = 5$ $x + 3y = 19$

(c)
$$2x + 5y = 24$$
 (d) $4x - 2y = 14$
 $3x - y = 2$ $3x + y = 23$

(a)
$$x=3$$
 $y=2$

(c) x=2

(a)
$$x = 6$$
 $y = 5$

(b) x=1

(b) x = 5

Solve:

(a)
$$x + 2y = 13$$
 (b) $7x - 4y = 5$
 $2x + 3y = 20$ $x + 2y = 11$

(c)
$$2x + 5y = 5$$
 (d) $4x - 2y = 14$
 $3x - 2y = 17$ $x - 3y = -4$

(a)
$$x = 1$$

 $y = 6$

 $(c) \propto =5$

y = -1

(a)
$$x=5$$
 $y=3$

 $(b) \propto =3$

Solve:

(a)
$$5x + 2y = 31$$
 (b) $4x + y = 5$
 $x - 4y = 4$ $2x + 3y = 10$

(c)
$$2x - 3y = 16$$
 (d) $x - 5y = 6$
 $7x - 2y = 39$ $3x + 2y = 1$

(e)
$$3x + 4y = 14$$
 (f) $x + 7y = 15.5$
 $x - y = -7$ $2x - 5y = -7$

Three apples and two oranges costs £2.53. Five apples and three oranges costs £4.12. Find the cost of one apple and the cost of one orange.

(a)
$$x=6$$
 (b) $x=0.5$
 $y=0.5$ $y=3$

(c)
$$x=5$$
 (d) $5c=1$
 $y=-2$ $y=-1$
(e) $5c=-2$ (f) $5c=1.5$

One apple 65p One orange 29p