

Simultaneous Equations Revision

Solve simultaneously:

1) $4x - y = 9$

$3x + 2y = 4$

2) $6x - 5y = -9$

$2x + 3y = 11$

3) $-3x - 4y = 11$

$2x + y = 1$

these will have fraction answers:

4) $2x - 3y = 9$

$4x + 4y = -7$

5) $4x + 5y = 19$

$3x - 2y = -6$

6) I buy some jeans for £30 each and some shirts for £45 each. In total I buy 13 items of clothing and spend a total of £450. How many jeans did I buy?

7) Two numbers have a difference of 13 and a sum of 35. Find the two numbers.

8) I buy 9 magnums and 2 starbars for £12 and I buy 4 magnums and 5 starbars for £7.80.

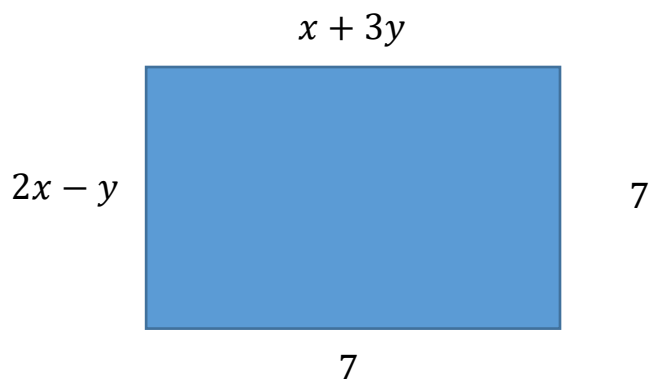
How much does each cost?

9) Use the cover-up method to find where the following lines cross the x and y axis and hence draw a quick sketch of them, labelling these points.

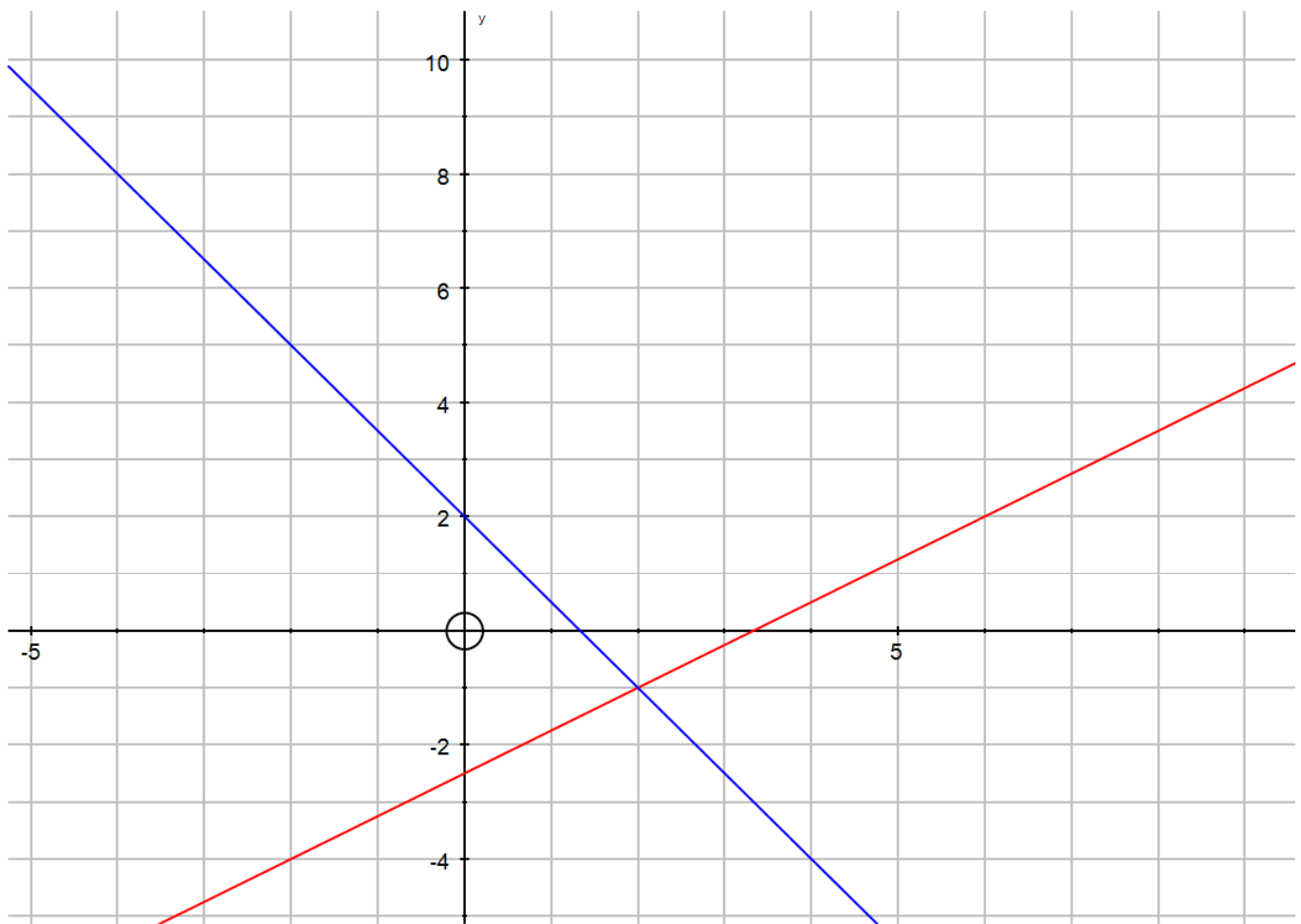
a) $2y - 5x = 40$

b) $3x + 2y = 24$

10) Find the values of x and y



11) The graphs below are $3x - 4y = 10$ and $3x + 2y = 4$



Use these graphs to solve the simultaneous equations

$$3x - 4y = 10$$

$$3x + 2y = 4$$

Ans 1. (2,-1) 2. (1,3) 3. (3,-5) 4. $(\frac{3}{4}, -\frac{5}{2})$ 5. $(\frac{2}{5}, \frac{87}{25})$ 6. 9 jeans, 4 shirts

7. 11 and 24 8. magnum £1.20 starbar 60p 9a. x-axis at -8 y-axis at 20

b. x-axis at 8 y-axis at 12 10. $x = 3, y = 1$ 11. $x = 2, y = -1$