GCSE QUESTIONS

Q1. NON-CALCULATOR

Solve the simultaneous equations

$$3x + y = -4$$
$$3x - 4y = 6$$

x = ...

y = ...

(Total for question = 3 marks)

Q2. NON-CALCULATOR

Solve the simultaneous equations

$$4x + y = 10$$
$$x - 5y = 13$$

x = ...

y = ...

(Total for question = 3 marks)

Q3. NON-CALCULATOR

Solve the simultaneous equations

$$4x + y = 25$$
$$x - 3y = 16$$

x = ... , y = ...

(Total for question is 3 marks)

Q4. NON-CALCULATOR

Solve the simultaneous equations

$$2x + 3y = 10$$
$$4x - y = -1$$

x = ...

y = ...

(Total for question = 3 marks)

Q5. NON-CALCULATOR

Solve the simultaneous equations

$$x + 3y = 12$$
$$5x - y = 4$$

x = ...

y = ...

(Total for question = 3 marks)

Q6. NON-CALCULATOR

Solve the simultaneous equations

$$3x - 2y = -5$$
$$2x - 4y = 2$$

x = ...

y = ...

(Total for question = 3 marks)

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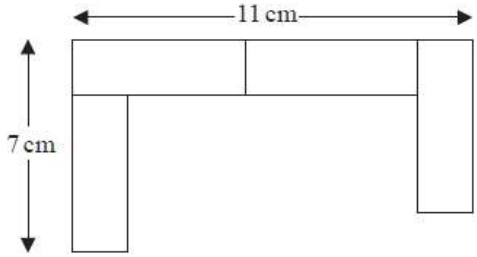
Q7. NON-CALCULATOR



A pattern is made using identical rectangular tiles.

Find the total area of the pattern.

..... cm^2

(Total for question is 4 marks)

Q8. NON-CALCULATOR

Solve the simultaneous equations

$$3x - 4y = 11$$
$$9x + 2y = 5$$

x = ...

y = ...

(Total for question = 3 marks)

Q9. NON-CALCULATOR

3 teas and 2 coffees have a total cost of £7.80
5 teas and 4 coffees have a total cost of £14.20

Work out the cost of one tea and the cost of one coffee.

tea £ .....

coffee £ .....

(Total for question = 4 marks)

Q10. NON-CALCULATOR

Solve algebraically

$$x^2 + y^2 = 18$$
$$x - 2y = -3$$

(Total for question = 5 marks)

Q11. NON-CALCULATOR

Solve algebraically the simultaneous equations

$$x^2 + y^2 = 25$$
$$y - 2x = 5$$

.....

(Total for question = 5 marks)

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Q12. NON-CALCULATOR

There are only *r* red counters and *g* green counters in a bag.

A counter is taken at random from the bag.

The probability that the counter is green is $\frac{3}{7}$

The counter is put back in the bag.

2 more red counters and 3 more green counters are put in the bag.
A counter is taken at random from the bag.

The probability that the counter is green is $\frac{6}{13}$

Find the number of red counters and the number of green counters that were in the bag originally.

red counters .....

green counters .....

(Total for question = 5 marks)

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Q13. CALCULATOR ALLOWED

Solve the simultaneous equations

$$5x + y = 21$$
$$x - 3y = 9$$

x = ...

y = ...

(Total for question = 3 marks)

Q14. CALCULATOR ALLOWED

Solve the simultaneous equations

$$2x - 4y = 19$$
$$3x + 5y = 1$$

x = ...

y =.....

(Total for question = 4 marks)

Q15. CALCULATOR ALLOWED

Solve the simultaneous equations

$$4x + 6y = 5$$
$$7x + 5y = -10.5$$

x = ...

y = ...

(Total for question = 4 marks)

Q16. CALCULATOR ALLOWED

Solve algebraically the simultaneous equations

$$x^2 + y^2 = 25$$
$$y - 3x = 13$$

.....

(Total for question = 5 marks)

Q17. CALCULATOR ALLOWED

Solve algebraically the simultaneous equations

$$2x^2 - y^2 = 17$$
$$x + 2y = 1$$

(Total for question = 5 marks)

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