SIMULTANEOUS EQUATIONS (LINEAR)

[ESTIMATED TIME: 75 minutes]

GCSE

(+ IGCSE) EXAM QUESTION PRACTICE

1.		[3 marks]
Solve the simultaneous equations	y - 2x = 6 $y + 2x = 0$	
Show clear algebraic working.		
		<i>x</i> =
		<i>y</i> =
2.		[3 marks]
Showing clear algebraic working, solve the	ne simultaneous equa	ations

$$3a + 2b = 1$$
$$a + 2b = 5$$

3.	[3 marks]

$$3x + y = 4$$
$$5x - y = 8$$

You must show sufficient working.

4. [3 marks]

Solve the simultaneous equations

$$5x + y = 17$$

$$x + y = 3$$

$$c + 5d = -13$$

 $4c - 5d = 48$

Show clear algebraic working.

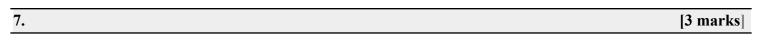
$$d = \dots$$

6. [3 marks]

Solve x + 2y = 3

$$x - y = 6$$

$$x = \dots$$



$$y = x + 3$$
$$y = 7x$$

$$\chi = \dots$$

8. [3 marks]

Solve the simultaneous equations

$$5y - 4x = 8$$
$$y + x = 7$$

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

You must show sufficient working.

$$x = \dots$$

10. [3 marks]

Solve the simultaneous equations

$$6x + 5y = 5$$

$$3x - 10y = 15$$

$$x = \dots$$

$$2x + 5y = 16
4x + 3y = 11$$

$$4x + 3y = 11$$

 $x = \dots$

$$8x - 4y = 7$$
$$12x - 8y = 6$$

$$2x - 5y = 13$$

$$6x + 3y = 3$$

x =

$$2x - 3y = 3$$
$$3x + 6y = 1$$

$$x = \dots$$

$$2x + 3y = 4$$

$$6x + 5y = 8$$

$$x = \dots y = \dots y = \dots$$

(b) Write down the coordinates of the point of intersection of the two lines whose equations are

$$2x + 3y = 4$$
 and

$$6x + 5y = 8$$

(.....) (1)

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

$$3x + 5y = -1$$

Show clear algebraic working.

$$\chi =$$

17. [4 marks]

Solve the simultaneous equations

$$6x - 5y = 13$$

$$4x - 3y = 8$$

$$x = \dots$$

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



$$y =$$
 (4)

(b) Write down the coordinates of the point of intersection of the two lines whose equations are 2x - 3y = 9 and 5x + 4y = 11

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19.

[4 marks]

Solve the simultaneous equations

$$4x + 5y = 13$$
$$3x - 2y = 27$$

Show clear algebraic working.

x =

20. [4 marks]

Solve the simultaneous equations

$$3x + 4y = 6$$

$$5x + 6y = 11$$

Show clear algebraic working.

x =

$$5x + 3y = 9$$
$$7x - 2y = 25$$

Show clear algebraic working.



$$y = \dots$$

$$(4)$$

(b) P is the point of intersection of the lines with equations 5x + 3y = 9 and 7x - 2y = 25

Write down the coordinates of P.

(a) Solve the simultaneous equations 3x + 5y = 14

$$4x + 3y = 4$$

Show clear algebraic working.



$$y = \dots$$

$$(4)$$

(b) Write down the coordinates of the point of intersection of the two lines whose equations are 3x + 5y = 14 and 4x + 3y = 4

