

1.3 Simultaneous Equations

Question Paper

Course	Edexcel IAL Maths: Pure 1
Section	1. Algebra & Functions
Topic	1.3 Simultaneous Equations
Difficulty	Easy

Time allowed: 40

Score: /31

Percentage: /100

Question 1

Solve the simultaneous equations

$$x + y = 8$$

$$x - y = 4$$

[2 marks]**Question 2**

(a) Show that the equation $4x + 2y - 6 = 0$ can be written as $y = 3 - 2x$.

[1 mark]**Question 2**

(b) By substituting the result from part (a) into the equation $3x + 2y - 1 = 1$ solve the equations

$$4x + 2y - 6 = 0$$

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

[3 marks]

Question 3

Solve the simultaneous equations

$$2x + 5y = 3$$

$$6x - 10y = 34$$

[3 marks]**Question 4**

Solve the simultaneous equations

$$5x - 2y - 16 = 0$$

$$3x + 7y + 15 = 0$$

[3 marks]**Question 5**

Substitute $y = x + 3$ into the equation $2x^2 - y^2 = 5x + 3$ in order to solve the equations simultaneously.

Clearly state which values of x correspond to which values of y from your solutions.

[4 marks]

Question 6

Solve the simultaneous equations

$$y = 2x - 1$$
$$x^2 + y^2 - 2 = 0$$

[4 marks]**Question 7**

Solve the simultaneous equations

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

[3 marks]

Question 8

Solve the simultaneous equations

$$y - x - 1 = 0$$

$$(2x + 1)^2 - 3y^2 + 3x - 10 = 0$$

[4 marks]**Question 9**

Solve the simultaneous equations

$$x + 3y - 1 = 0$$

$$x^2 + 9y = 2 - y^2$$

[4 marks]



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