

AQA, OCR, Edexcel

GCSE

GCSE Maths

Simultaneous Equations (Linear and Non Linear) Questions

Name:

M M E

Mathsmadeeasy.co.uk

Total Marks: /41

Simultaneous Equations (Linear and Non-linear)

1. a. On the axis below plot the following equations

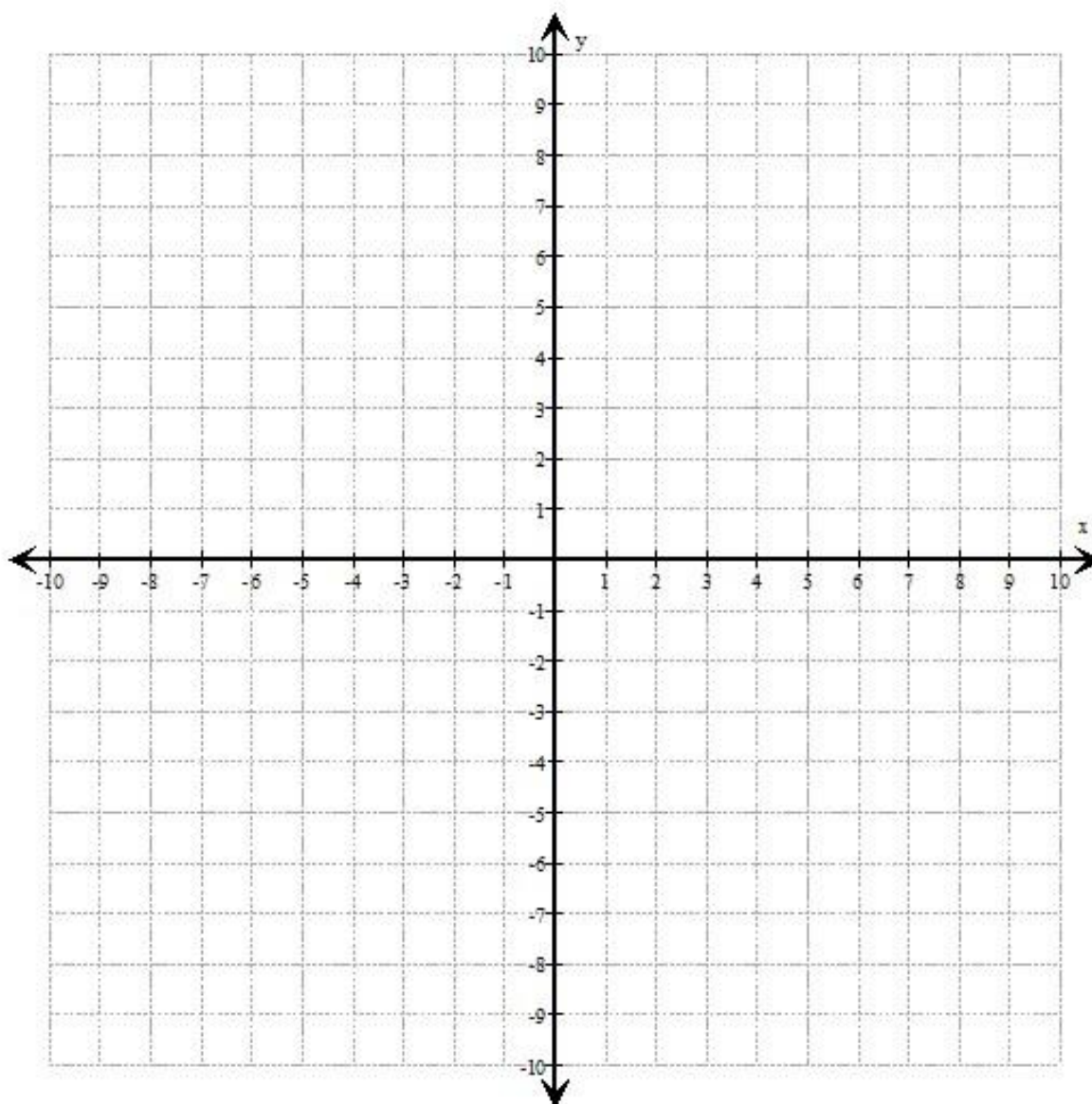
$$y = -x + 2$$

x	-2	-1	0	1	2	3
y						

and

$$x^2 + 2x - 1$$

x	-4	-3	-2	-1	0	1	2
y							



(5 Marks)

Visit <http://www.mathsmadeeasy.co.uk/> for more fantastic resources.

b. use the graphs drawn in part a to estimate solutions to the two simultaneous equations $y = -x + 2$ and $x^2 + 2x - 1$.

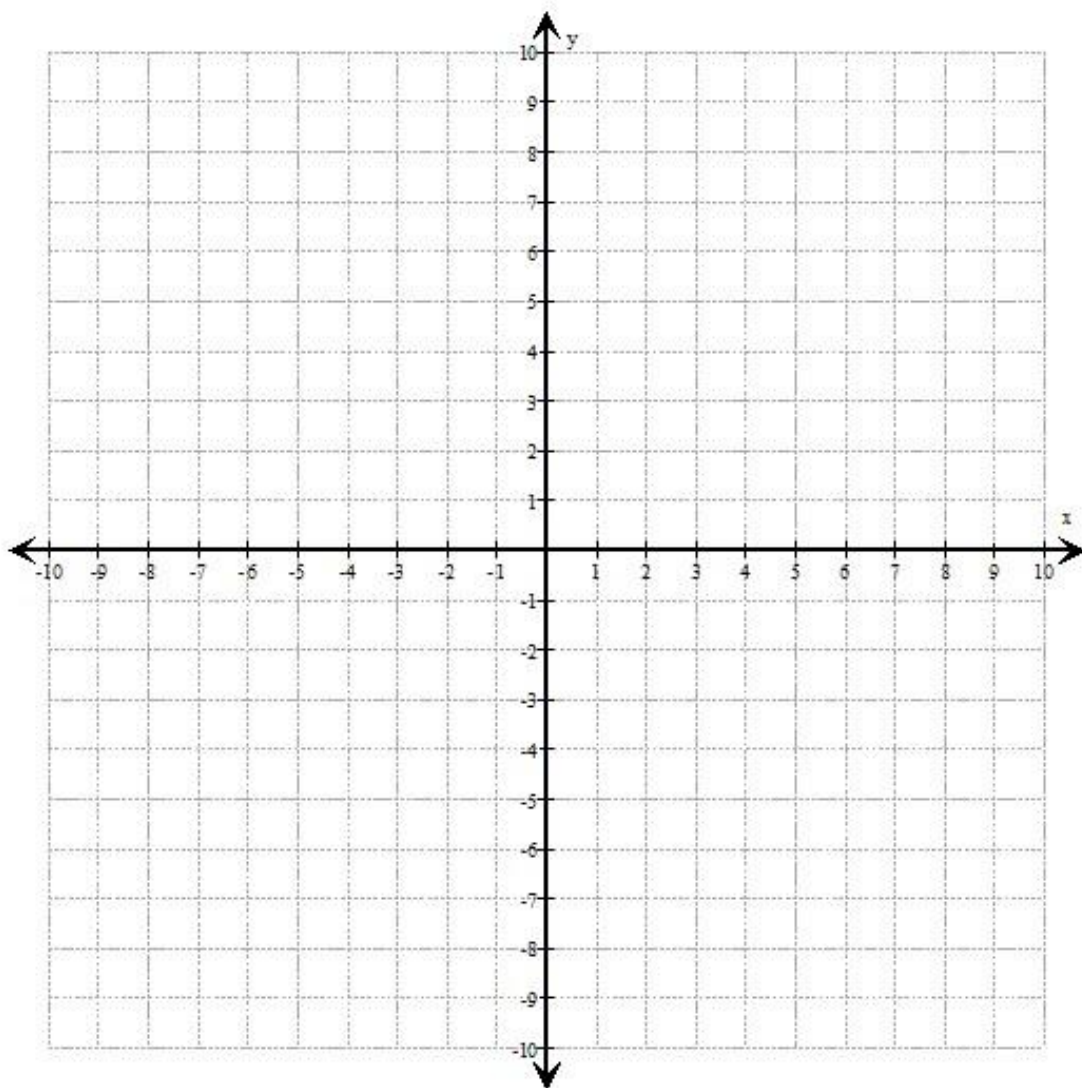
(2 Marks)

c. Now solve these two equations simultaneously: $y = -x + 2$ and $x^2 + 2x - 1$.

Give your answer to 3 significant figures

(4 Marks)

2. Use the Axis below to find estimates of solutions to the pair of equations $x^2 + y^2 = 9$ and $2y = x + 1$



(4 marks)

Visit <http://www.mathsmadeeasy.co.uk/> for more fantastic resources.

b. Now solve these two equations simultaneously $x^2 + y^2 = 9$ and $2y = x + 1$

Give your answer to 3 significant figures .

(4 Marks)

3. Solve these two equations simultaneously:

$$3x + y = -9$$

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

(5 Marks)

4. Solve these two equations simultaneously:

$$2x + 0.5y = 10$$

$$\frac{2(x - 1)}{3} = \frac{2y}{6(x + 4)}$$

(5 Marks)