

**AQA, OCR, Edexcel**

**GCSE**

# GCSE Maths

## Graph Exam Answers

Name:

**M M E**

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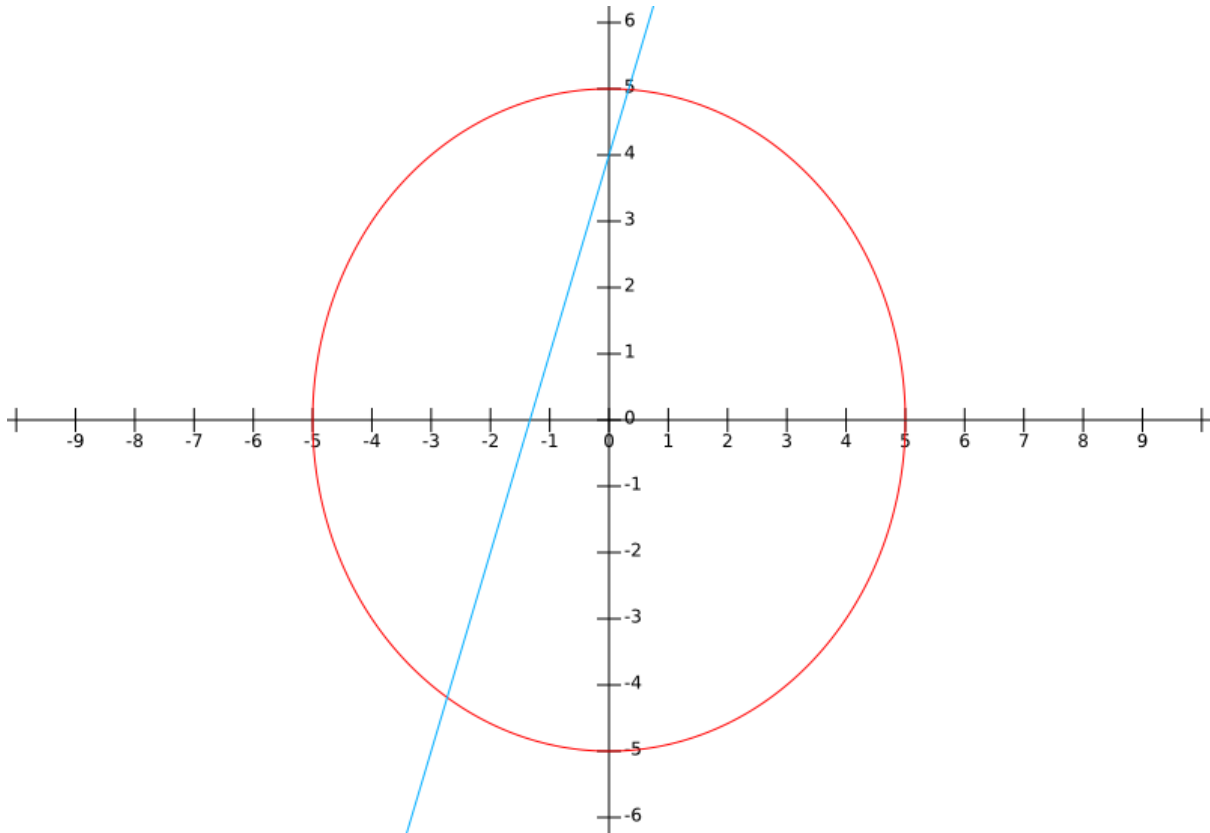
Total Marks: /23

## Graph Exam Questions

1. Sketch the following functions on the set of axes below:

a.  $x^2 + y^2 = 25$

b.  $y = 3x + 4$



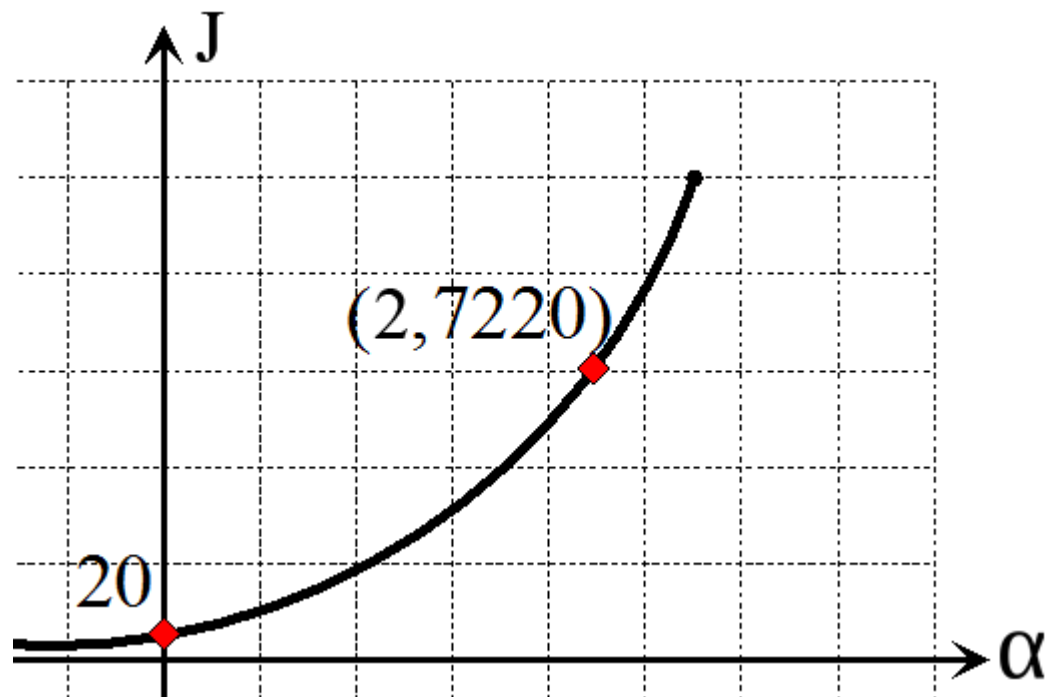
a. Use the Graph to estimate the solutions to the pair of simultaneous equations above.

$$x \approx 0.3, y \approx 5$$

$$x \approx -2.7, y \approx -4.2$$

(8 Marks)

2. The graph below shows the line plotted for the equation  $J = NP^a$



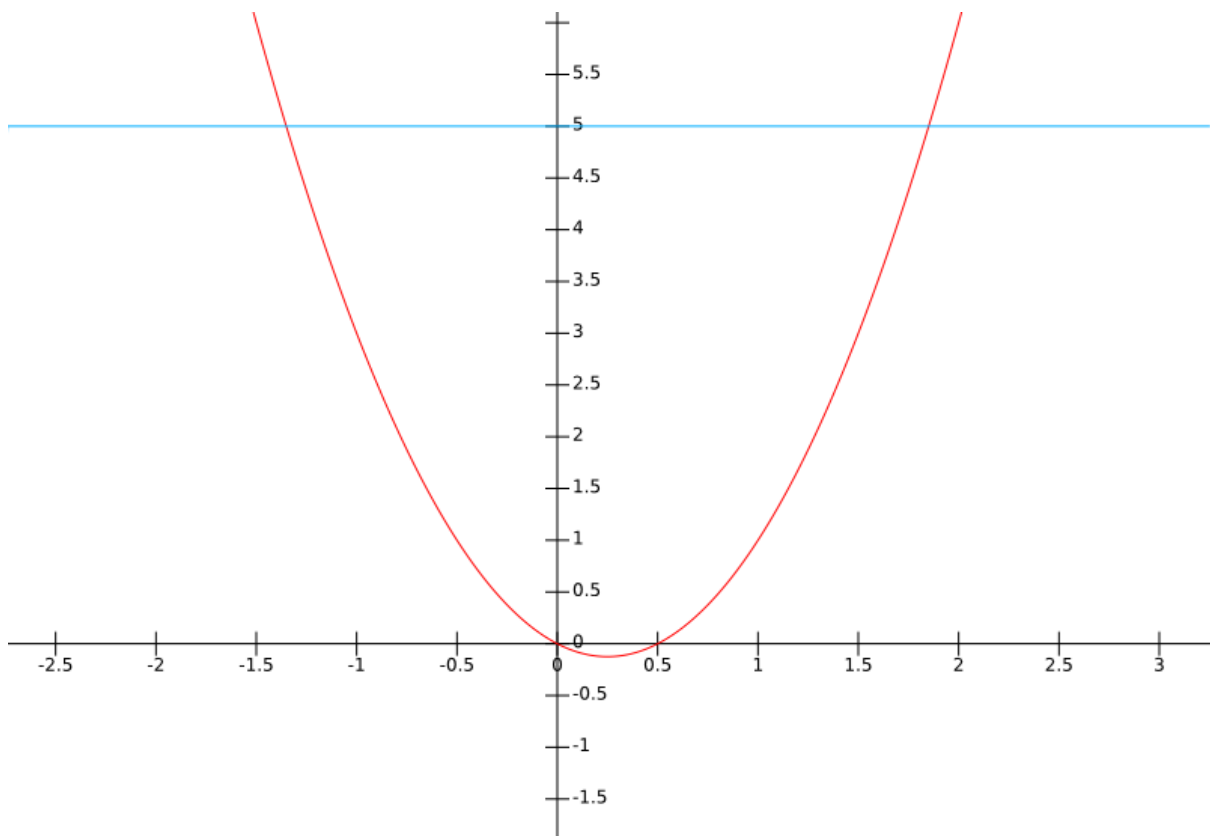
Given that  $N$  and  $P$  are positive constants, find the values of  $N$  and  $P$ .

$$N = 20$$

$$P = 19$$

(4 Marks)

3. Use the axes below to help you answer the following questions:



- Plot the graph of  $y = 2x^2 - x$ .
- Use your plot to estimate solution(s) to  $2x^2 - x = 5$ .

$$x \approx -1.4, \quad x \approx 1.9$$

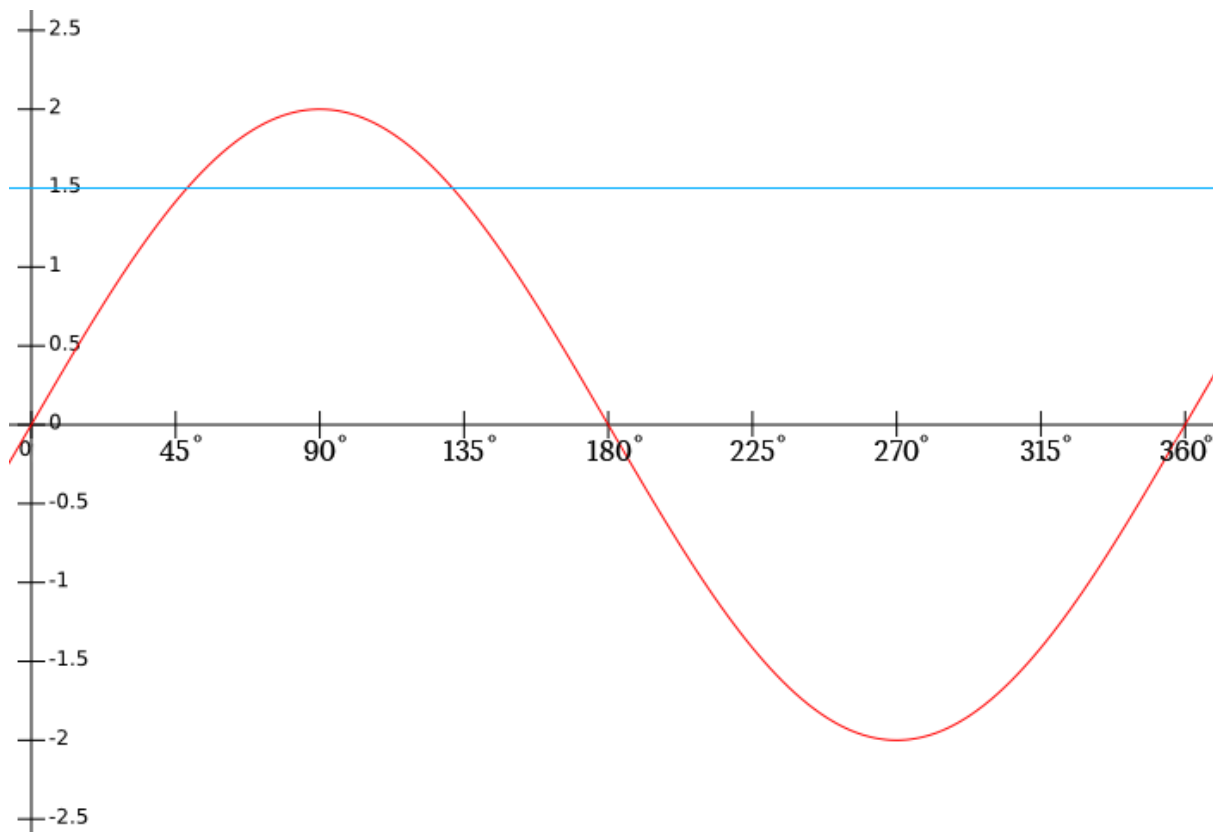
- Write down the equation of the line you would need to draw on the axes to estimate the solution(s) to  $2x^2 - 4x - 1 = 0$ .

$$y = 3x + 1$$

(6 Marks)

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4. Use the axes below to help you answer the following questions:



- Plot the graph of  $y = 2 \sin(x)$  for  $-360^\circ < x < 360^\circ$ .
- Use the graph from part (a) to estimate the solution(s) to  $2 \sin(x) = 1.5$  for  $x$  values between  $0^\circ$  and  $360^\circ$ .

$$x \approx 49^\circ, \quad x \approx 131^\circ$$

(5 marks)