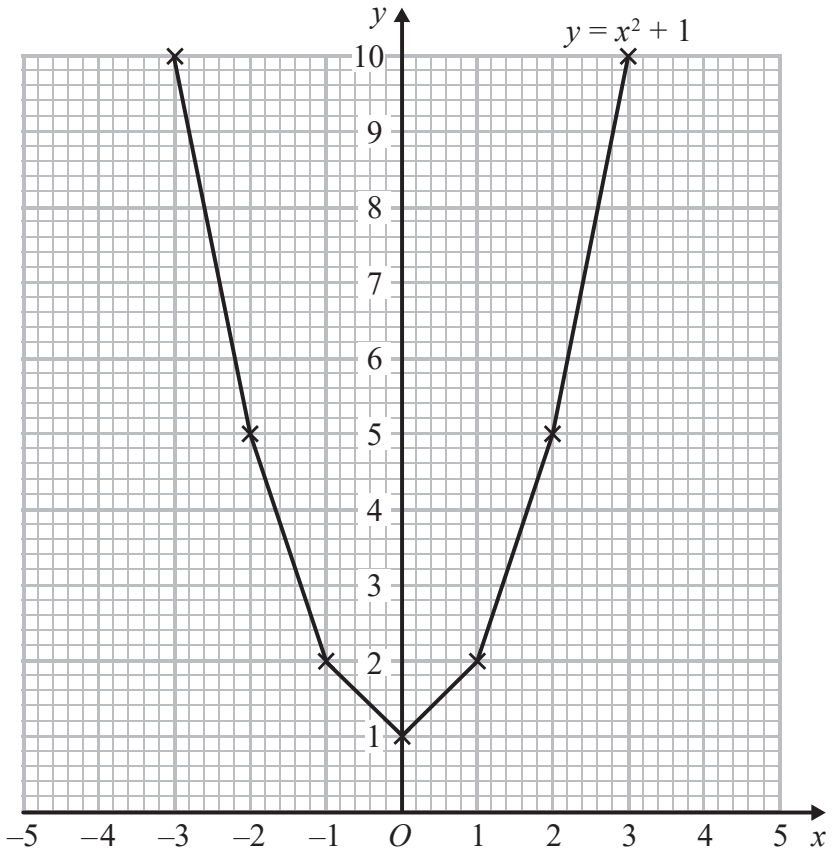
Autumn 2017 Paper 1 Q7

1 Brogan needs to draw the graph of $y = x^2 + 1$

Here is her graph.



Write down one thing that is wrong with Brogan's graph.

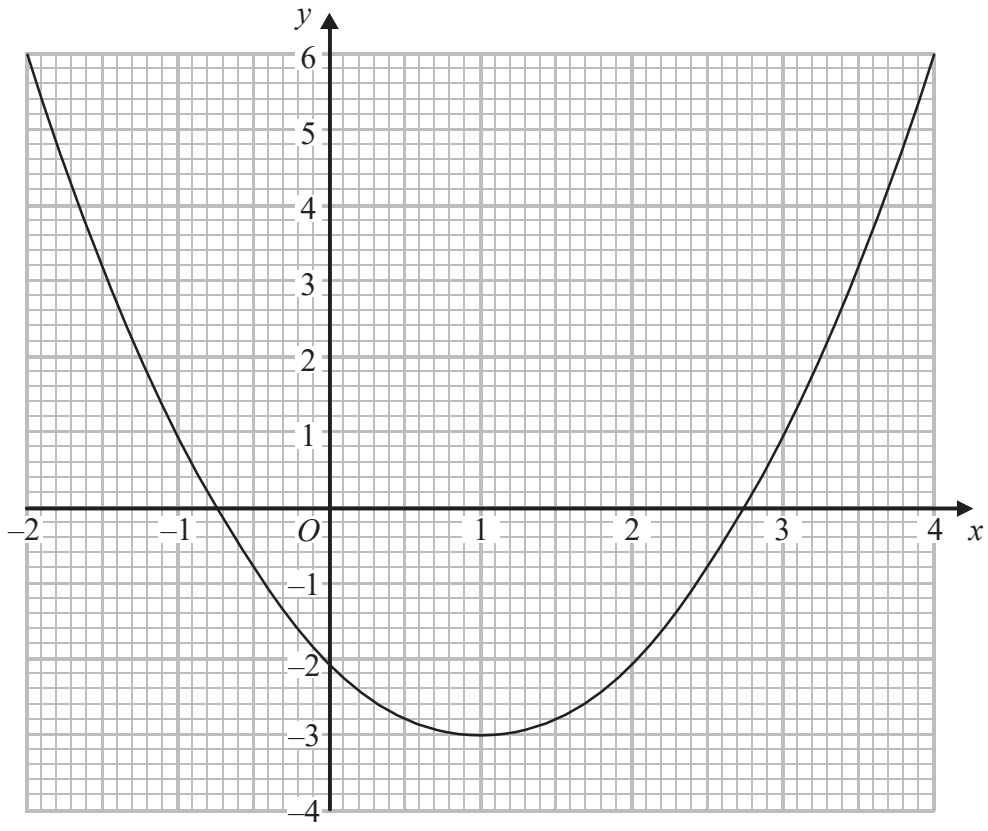
.....

.....

(Total for Question 1 is 1 mark)

Summer 2017 Paper 1 Q11

2 The graph of $y = f(x)$ is drawn on the grid.



(a) Write down the coordinates of the turning point of the graph.

(..... , ...)

(1)

(b) Write down estimates for the roots of $f(x) = 0$

.....

(1)

(c) Use the graph to find an estimate for $f(1.5)$

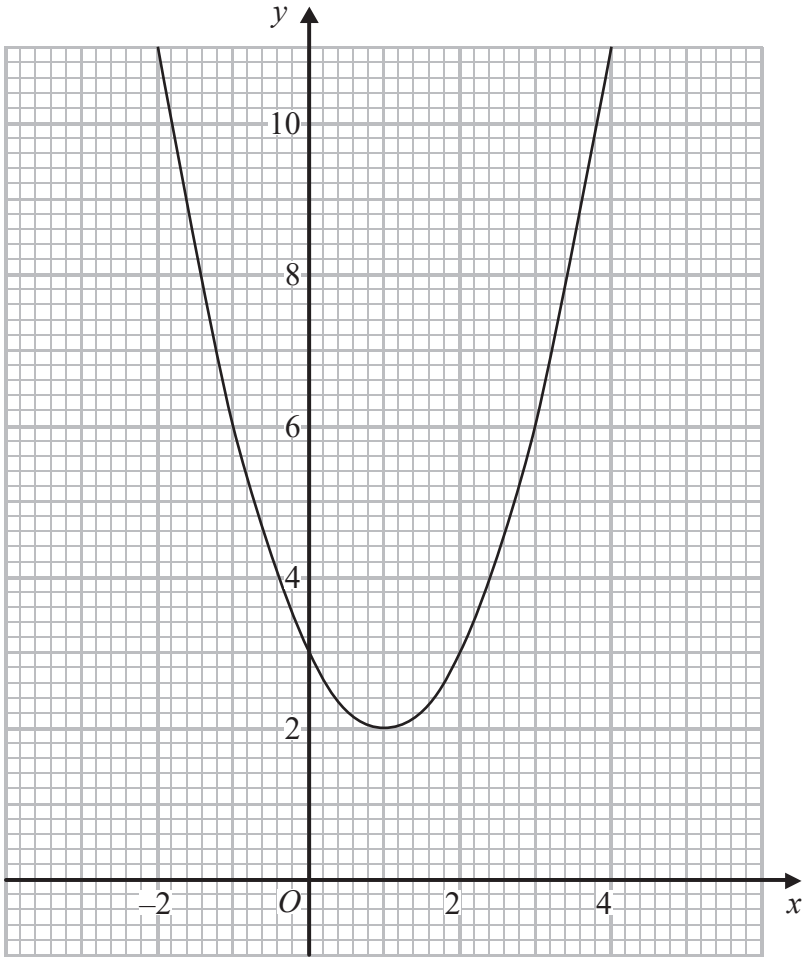
.....

(1)

(Total for Question 2 is 3 marks)

Summer 2017 Paper 2 Q20

3 The diagram shows part of the graph of $y = x^2 - 2x + 3$



(a) By drawing a suitable straight line, use your graph to find estimates for the solutions of $x^2 - 3x - 1 = 0$

.....

(2)

P is the point on the graph of $y = x^2 - 2x + 3$ where $x = 2$

(b) Calculate an estimate for the gradient of the graph at the point P.

.....

(3)

(Total for Question 3 is 5 marks)

Summer 2020 Paper 2 Q17

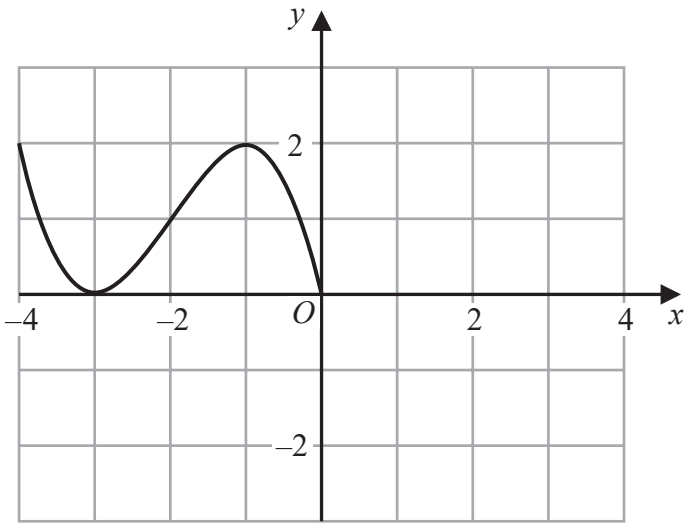
4 Write down the coordinates of the turning point on the graph of $y = (x + 12)^2 - 7$

(..... , ...)

(Total for Question 4 is 1 mark)

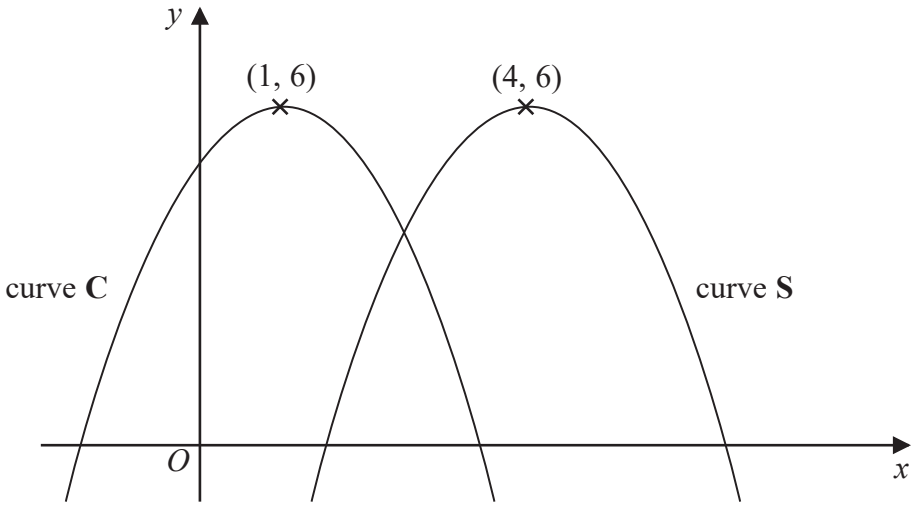
Summer 2020 Paper 2 Q21

5 The graph of the curve with equation $y = f(x)$ is shown on the grid below.



(a) On the grid above, sketch the graph of the curve with equation $y = f(-x)$

(2)



The curve **C** with equation $y = 5 + 2x - x^2$ is transformed by a translation to give the curve **S** such that the point (1, 6) on **C** is mapped to the point (4, 6) on **S**.

(b) Find an equation for **S**.

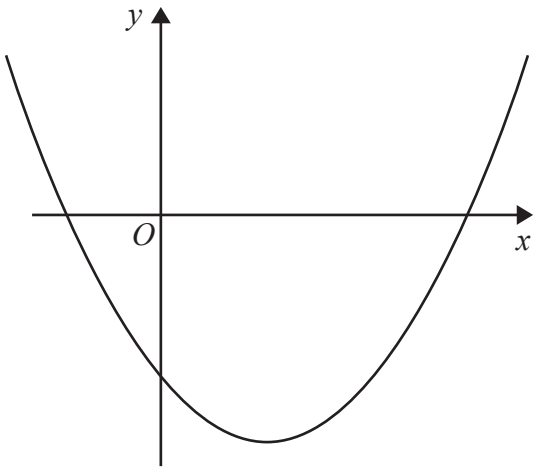
.....

(2)

(Total for Question 5 is 4 marks)

Autumn 2018 Paper 1 Q17

6 Here is a sketch of a curve.



The equation of the curve is $y = x^2 + ax + b$ where a and b are integers.

The points $(0, -5)$ and $(5, 0)$ lie on the curve.

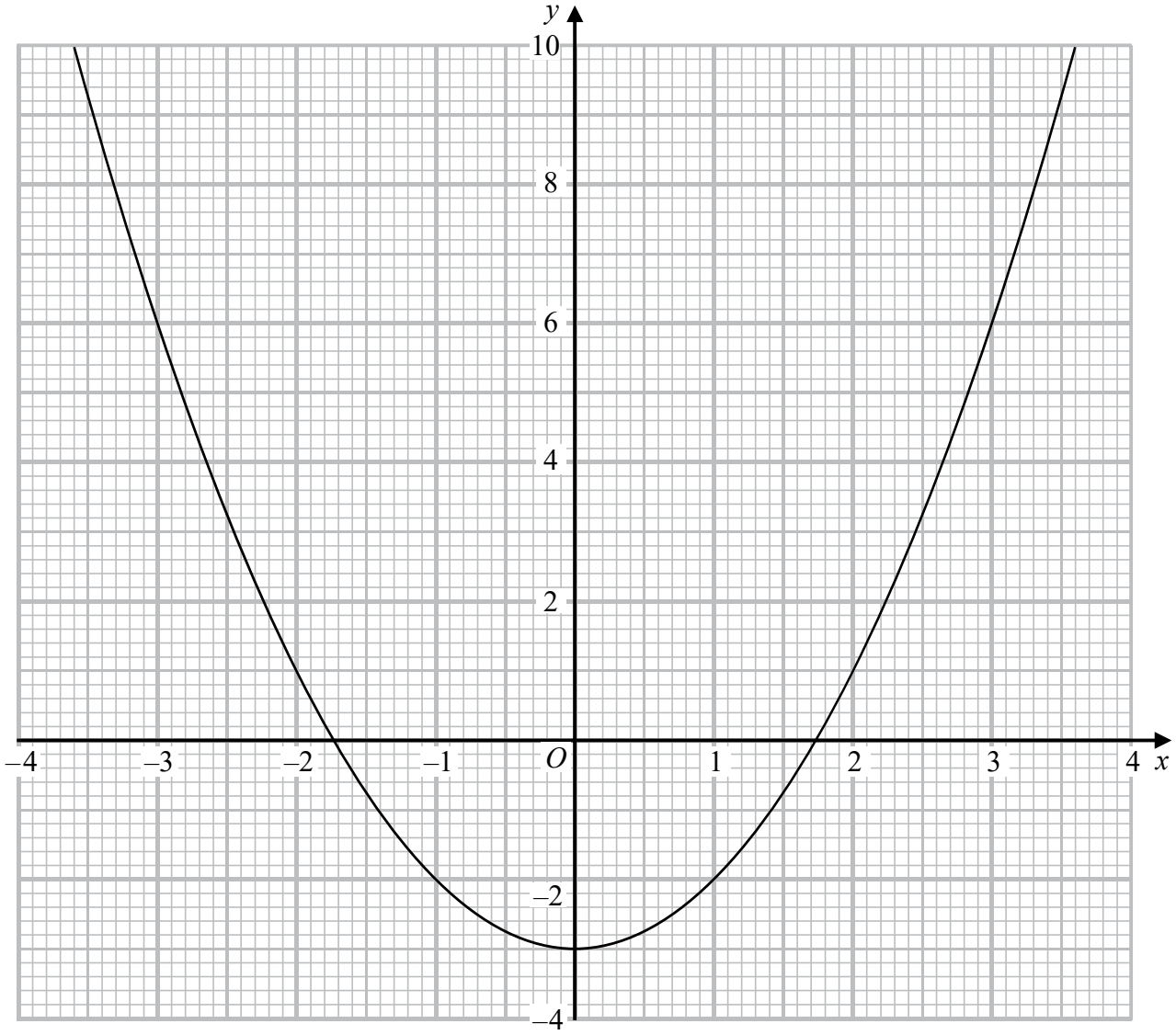
Find the coordinates of the turning point of the curve.

(..... , ...)

(Total for Question 6 is 4 marks)

Autumn 2019 Paper 3 Q17

7 Here is the graph of $y = x^2 - 3$



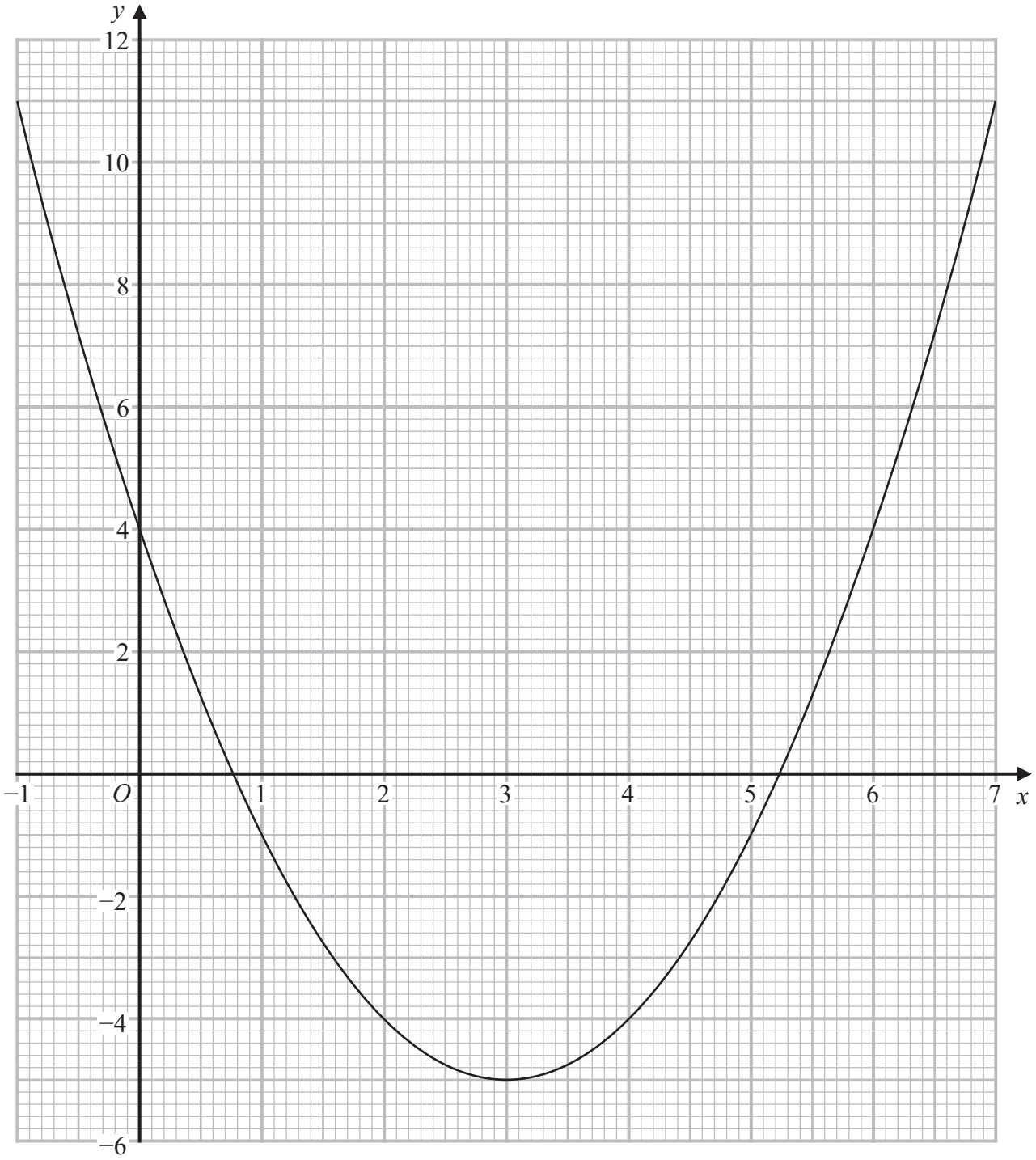
Use the graph to find estimates for the solutions to the equation $x^2 - 2x - 2 = 0$
You must show how you get your solutions.

.....

(Total for Question 7 is 4 marks)

Autumn 2022 Paper 2 Q7

8 Here is the graph of $y = x^2 - 6x + 4$



(a) Write down the y intercept of the graph of $y = x^2 - 6x + 4$

.....

(1)

(b) Write down the coordinates of the turning point of the graph of $y = x^2 - 6x + 4$

(..... , ...)

(1)

(c) Use the graph to find estimates for the roots of $x^2 - 6x + 4 = 0$

.....

(2)

(Total for Question 8 is 4 marks)