

8.

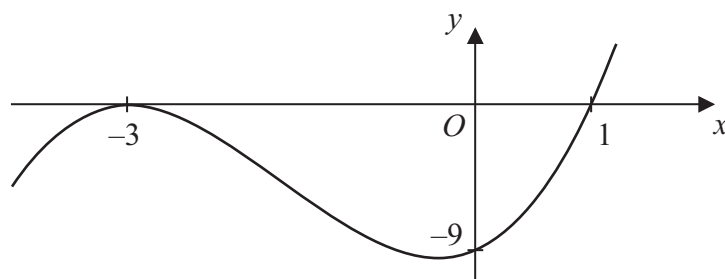


Figure 1

Figure 1 shows a sketch of the curve with equation $y = f(x)$ where

$$f(x) = (x + 3)^2 (x - 1), \quad x \in \mathbb{R}.$$

The curve crosses the x -axis at $(1, 0)$, touches it at $(-3, 0)$ and crosses the y -axis at $(0, -9)$

- (a) In the space below, sketch the curve C with equation $y = f(x + 2)$ and state the coordinates of the points where the curve C meets the x -axis. **(3)**
- (b) Write down an equation of the curve C . **(1)**
- (c) Use your answer to part (b) to find the coordinates of the point where the curve C meets the y -axis. **(2)**



Question 8 continued

Q8

(Total 6 marks)



P 4 1 8 0 2 A 0 1 7 2 8

