10.

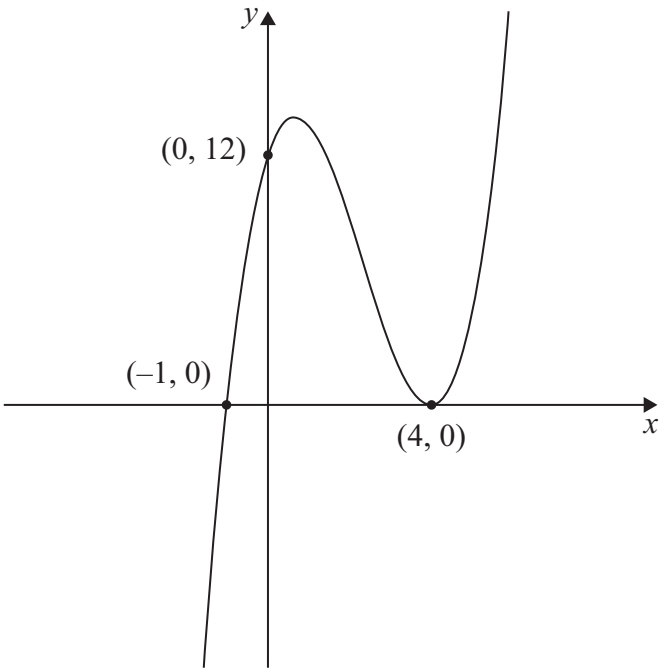


Figure 4

Figure 4 shows a sketch of the curve C_1 with equation $y = f(x)$ where $f(x)$ is a cubic function in x.

The curve

- cuts the x and y axes at $(-1, 0)$ and $(0, 12)$ respectively
- has a minimum turning point at $(4, 0)$

as shown in Figure 4.

(a) Find $f(x)$

(4)

The curve C_2 has equation $y = g(x)$ where $g(x) = 6(x + 1)(x - 2)$

(b) Find the exact x coordinates of the points of intersection of curves C_1 and C_2

(*Solutions relying on calculator technology are not acceptable.*)

(4)

(Total for Question 10 is 8 marks)

TOTAL FOR PAPER IS 75 MARKS