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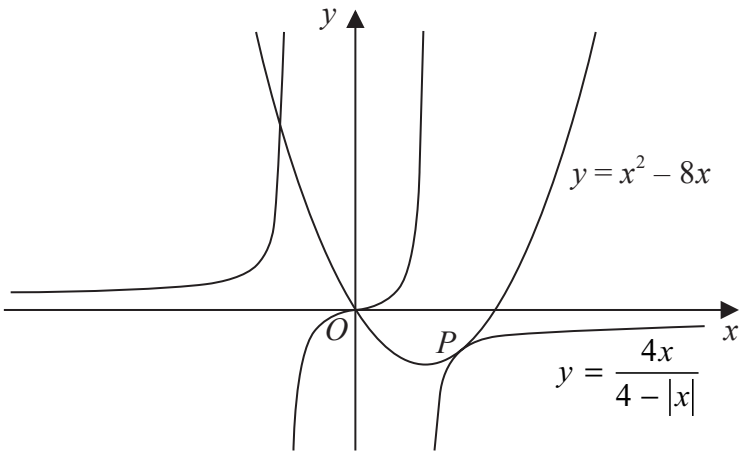


Figure 1

Figure 1 shows a sketch of the curve C_1 with equation

$$y = \frac{4x}{4 - |x|}$$

and the curve C_2 with equation

$$y = x^2 - 8x$$

For $x > 0$, C_1 has equation $y = \frac{4x}{4 - x}$

(a) Use algebra to show that C_1 touches C_2 at a point P, stating the coordinates of P

(5)

(b) Hence or otherwise, using algebra, solve the inequality

$$x^2 - 8x > \frac{4x}{4 - |x|}$$

(6)

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Question 3 continued

(Total 11 marks)

Q3