

9 (a) (i) Find

$$\int (4x - x^3) dx$$

[2 marks]

9 (a) (ii) Evaluate

$$\int_{-2}^2 (4x - x^3) dx$$

[1 mark]

9 (b) Using a sketch, explain why the integral in part **(a)(ii)** does **not** give the area enclosed between the curve $y = 4x - x^3$ and the x -axis.

[2 marks]

9 (c) Find the area enclosed between the curve $y = 4x - x^3$ and the x -axis.

[2 marks]