

**2** The curve  $C$  has equation

$$y = x^3 + ax^2 + bx + 8$$

where  $a$  and  $b$  are constants.

The gradient of  $C$  at the point  $(2, 6)$  is 9.8

Find the value of  $a$  and the value of  $b$ .

Show clear algebraic working.

(5)



## **Question 2 continued**

**DO NOT WRITE IN THIS AREA**

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(Total for Question 2 is 5 marks)

