1.3 Pure: Coordinate Geometry (Lines and Circles): 10-minute Pack

EDEXCEL 9MA0 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Find the midpoint of the points (4, -2) and (10, 6).

(Total for Question 1 is 1 mark)

2 Find the distance between the points (0, 0) and (6, 8).

(Total for Question 2 is 1 mark)

3 Write down the gradient of the line with equation $y = 4x - 7$.

(Total for Question 3 is 1 mark)

4 The points A(-3, -1) and B(9, 7) are joined by a straight line. The point P lies on AB such that AP : PB = 1 : 3.

(a) Find the coordinates of P. **(3)**

(b) Find the exact distance AP. **(2)**

(Total for Question 4 is 5 marks)

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Mark scheme · 1.3 Pure: Coordinate Geometry (Lines and Circles): 10-minute Pack

Question 1

(7, 2) cao **B1**

Answer: (7, 2)

Question 2

10 cao **B1**

Answer: 10

Question 3

4 cao **B1**

Answer: 4

Question 4

(a) finds vector AB = (9 - (-3), 7 - (-1)) = (12, 8) **M1**

(a) uses P = A + (1/4)AB (since AP : PB = 1 : 3 means AP is 1/4 of AB) **M1**

(a) P = (0, 1) cao **A1**

(a) Answer: P = (0, 1)

(b) uses AP = $\sqrt{(0 - (-3))^2 + (1 - (-1))^2}$ **M1**

(b) AP = $\sqrt{13}$ exact, oe awrt 3.61 **A1**

(b) Answer: AP = $\sqrt{13}$ (awrt 3.61)

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