Further Pure Maths: Rectangular Cartesian Coordinates: 10-minute Pack

EDEXCEL 4PM1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Show your working. Give exact answers unless stated otherwise. Coordinates use the same unit on both axes.

1 A(-4, -1) and B(2, 7) are fixed points. Find an equation of the perpendicular bisector of AB. Hence find the point on $x + y = 4$ that is equidistant from A and B.

(Total for Question 1 is 5 marks)

2 M is the midpoint of C(-7, 6) and D(3, -4). Find the coordinates of M.

(Total for Question 2 is 2 marks)

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Mark scheme · Further Pure Maths: Rectangular Cartesian Coordinates: 10-minute Pack

Question 1

Midpoint = (-1, 3).	**B1**
Perpendicular gradient = -3/4.	**B1**
Perpendicular bisector 3*x + 4*y = 9, or equivalent.	**A1**
Solve the bisector equation simultaneously with x + y = 4.	**M1**
(7, -3); accept any valid method for the corresponding marks.	**A1**

Answer: 3*x + 4*y = 9; (7, -3)

Question 2

Average the two x-coordinates and the two y-coordinates.	**M1**
M = (-2, 1); accept any valid method for the corresponding marks.	**A1**

Answer: (-2, 1)

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