FOUNDATION

5.15 Equation of a Line: 10-minute Pack

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Work out x when y = 10 for the equation y = 3x - 5.

(Total for Question 1 is 1 mark)

2 Find the gradient of the line passing through the points (1, 2) and (4, 8).

(Total for Question 2 is 1 mark)

3 Write down the equation of the line with gradient 1/2 that passes through the point (0, -3). Give your answer in the form y = mx + c.

(Total for Question 3 is 2 marks)

4 A line passes through the point (2, 5) and has a y-intercept of 1. Find the equation of the line in the form y = mx + c.

(Total for Question 4 is 2 marks)

5 A line has equation y = 4x - 7. State whether the point (3, 5) lies on this line. Show your working.

(Total for Question 5 is 2 marks)

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Mark scheme · 5.15 Equation of a Line: 10-minute Pack

Question 1

x = 5 cao **B1**

Answer: 5

Question 2

gradient = 2 cao **B1**

Answer: 2

Question 3

substitute gradient and point into y = mx + c to find c, or state c = -3 **M1**

y = 1/2 x - 3 cao **A1**

Answer: y = 1/2 x - 3

Question 4

find gradient m = (5 - 1)/(2 - 0) = 2 or equivalent method **M1**

y = 2x + 1 cao **A1**

Answer: y = 2x + 1

Question 5

substitute x = 3 into y = 4x - 7 to get y = 5 **M1**

yes, (3, 5) lies on the line cao **A1**

Answer: Yes, (3, 5) lies on the line since y = 4(3) - 7 = 5.

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