3.1 Coordinate Geometry: Straight Lines: 10-minute Pack

Total Marks

AQA 8365 · Calculator allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A taxi firm in Preston models the cost, C pounds, of a journey of m miles using the formula C = 2.50 + 1.20m.

(a) State the fixed charge and the cost per mile given by this model. **(2)**

(b) On a graph of C against m, write down the gradient and the y-intercept of the line. **(2)**

.....

(c) A journey with this firm costs £14.50 in total. Work out the distance travelled, in miles. **(3)**

.....

(Total for Question 1 is 7 marks)

2 Find the gradient of the line joining A(2, 3) and B(6, 11).

(Total for Question 2 is 1 mark)

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3 Find the equation of the line parallel to $y = 5x - 2$ that passes through the point (1, 9). Give your answer in the form $y = mx + c$.

(Total for Question 3 is 2 marks)

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Mark scheme · 3.1 Coordinate Geometry: Straight Lines: 10-minute Pack

Question 1

(a) fixed charge = £2.50 oe **B1**

(a) cost per mile = £1.20 oe **B1**

(a) Answer: Fixed charge £2.50; cost per mile £1.20

(b) gradient = 1.20 oe **B1**

(b) y-intercept = 2.50 oe (accept (0, 2.50)) **B1**

(b) Answer: Gradient 1.20, y-intercept 2.50

(c) 14.50 - 2.50 (= 12) oe **M1**

(c) 12 / 1.20 (dependent on previous method) **M1**

(c) 10 miles cao **A1**

(c) Answer: 10 miles

Question 2

gradient = 2 cao **B1**

Answer: gradient = 2

Question 3

uses gradient 5 (parallel lines have equal gradients) with the point (1, 9) **M1**

y = 5x + 4 cao **A1**

Answer: y = 5x + 4

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