7.3 Direct and Inverse Proportion Depth: 10-minute Pack

Total Marks

EDEXCEL 1MA1 · Calculator allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 y is inversely proportional to x. Write down the equation connecting y and x using a constant k.

(Total for Question 1 is 1 mark)

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2 y is directly proportional to x. When x = 6, y = 18.

(a) Find the value of k in the formula y = kx. **(2)**

(b) Work out the value of y when x = 10. **(2)**

(Total for Question 2 is 4 marks)

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3 The cost, C pounds, of a length of ribbon is directly proportional to its length, L metres. 5 metres of ribbon costs £6.50.

(a) Find the value of k in the formula C = kL. **(1)**

(b) Work out the cost of 12 metres of the same ribbon. **(2)**

(Total for Question 3 is 3 marks)

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Mark scheme · 7.3 Direct and Inverse Proportion Depth: 10-minute Pack

Question 1

y = k/x oe **B1**

Answer: y = k/x

Question 2

(a) sets up 18 = k*6 oe **M1**

(a) k = 3 cao **A1**

(a) Answer: k = 3

(b) substitutes x = 10 into y = 3x (ft their k) **M1**

(b) y = 30 cao **A1**

(b) Answer: y = 30

Question 3

(a) k = 1.3 oe **B1**

(a) Answer: k = 1.3

(b) substitutes L = 12 into C = 1.3L (ft their k) **M1**

(b) £15.60 cao **A1**

(b) Answer: £15.60

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