2.21-6 Worded Problems Set F: 10-minute Pack

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Towns A and B are 210 km apart. A car leaves town A at 9:15 and travels towards B at 60 km/h. A cyclist leaves town B at 10:00 and travels towards A at 18 km/h. At what time do they meet? Also give the distance from town A to the meeting point, to the nearest kilometre.

(6)

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2 In the number 6,304, what is the value of the digit 3?

- ☐ A) 3
- ☐ B) 30
- ☐ C) 300
- ☐ D) 3,000
- ☐ E) 30,000

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3 A box contains 48 cupcakes. Priya puts them into bags with 6 cupcakes in each bag. How many full bags can she make?

(1)

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4 Round 7,348 as follows.

(a) Round 7,348 to the nearest 100. **(1)**

(b) Round 7,348 to the nearest 10. **(1)**

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5 A jacket is reduced by 30% in a sale. The sale price is £84. What was the original price of the jacket?

(2)

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Mark scheme · 2.21-6 Worded Problems Set F: 10-minute Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

car head start distance from 9:15 to 10:00: 60 x 0.75 = 45 km seen	**M1**
remaining distance at 10:00 = 210 - 45 = 165 km seen	**M1**
combined speed 60 + 18 = 78 km/h seen	**M1**
time after 10:00 to meet 165/78 h seen	**M1**
convert 165/78 = 2.1153846 h = 2 h 6.9... min seen (2 h 7 min to nearest minute)	**M1**
meeting time 12:07 and distance from A = 60 x (0.75 + 165/78) ~ 171.923 ~ 172 km (to nearest km) cao	**A1**

Answer: They meet at about 12:07. Distance from A ~ 172 km (to nearest km).

Question 2

correct option C (300) cao	**B1**

Answer: C) 300

Question 3

8 cao	**B1**

Answer: 8 bags

Question 4

(a) 7,300 cao	**B1**

(a) Answer: 7,300

(b) 7,350 cao	**B1**

(b) Answer: 7,350

Question 5

recognition that 84 = 70% of original or setup original = 84/0.7	**M1**
£120 cao	**A1**

Answer: £120 (original price)

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