2.47-5 Mixed Problem-Solving Paper E: 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 Esme buys 3 identical magazines at £1.85 each and a poster for £4.10. She pays with a £20 note. How much change does she receive?

(3)

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2 A pie chart shows how 252 visitors arrived at a museum. The sector for 'By car' has an angle of 100 degrees. How many visitors arrived by car?

(3)

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3 In 7 matches, a hockey team scored the following numbers of goals: 2, 3, 2, 4, 2, 5, 1.

(a) Find the range of the number of goals scored. **(2)**

.....

(b) Find the mode of the number of goals scored. **(2)**

.....

4 The exterior angle at vertex B of triangle ABC is 118 degrees. Angle A = 61 degrees. Find the size of angle C.

(3)

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Mark scheme · 2.47-5 Mixed Problem-Solving Paper E: 10-minute Pack

Question 1

3 x 1.85 = 5.55	**M1**
5.55 + 4.10 = 9.65	**M1**
£10.35 cao	**A1**

Answer: £10.35

Question 2

100/360 simplified to 5/18, or equivalent	**M1**
252 x 100/360 (complete correct method)	**M1**
70 cao	**A1**

Answer: 70 visitors

Question 3

(a) identifies the highest (5) and lowest (1) values	**M1**
(a) 4 cao	**A1**

(a) Answer: 4

(b) identifies that 2 occurs most often (three times)	**M1**
(b) 2 cao	**A1**

(b) Answer: 2 goals

Question 4

uses the exterior angle theorem: angle A + angle C = 118 (or finds interior angle B = 180 - 118 = 62)	**M1**
substitutes angle A = 61 into the equation	**M1**
57 degrees cao	**A1**

Answer: 57 degrees

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