2.22-2 Multi-Step Reasoning Challenge Set 2: 10-minute Pack

Total Marks

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

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Four pupils - Rosie, Sam, Priya and Tom - each sit one exam: Maths, English, Science or French.

- Sam sits English.
- Tom's exam is Science.
- Rosie does not sit French.

Work out which exam Rosie sits and which exam Priya sits.

(3)

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2 A fruit squash is made from concentrate and water mixed in the ratio 1:4. Ffion wants to make 2.5 litres of the same-strength squash. How many millilitres of concentrate does she need?

(2)

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3 Using the digits 1, 2, 3, 4 and 5, how many three-digit numbers can be formed that are multiples of 5, if all three digits in the number must be different?

(3)

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4 After spending 1/3 of his money on a comic, and then 1/4 of what remained on sweets, Oscar has £6 left. How much money did Oscar start with?

(3)

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Mark scheme · 2.22-2 Multi-Step Reasoning Challenge Set 2: 10-minute Pack

Question 1

recognises the two remaining exams for Rosie and Priya are Maths and French (oe)	**M1**
Rosie sits Maths cao	**A1**
Priya sits French cao	**A1**

Answer: Rosie sits Maths, Priya sits French

Question 2

recognises concentrate makes up 1/5 of the total mixture (oe)	**M1**
500 ml cao	**A1**

Answer: 500 ml

Question 3

recognises the units digit must be 5, the only multiple of 5 available (oe)	**M1**
finds the hundreds digit has 4 choices and the tens digit has 3 remaining choices (oe)	**M1**
12 cao	**A1**

Answer: 12

Question 4

recognises the £6 remaining is 3/4 of the amount he had before buying sweets, so finds 6 divided by 3/4 = £8 (oe)	**M1**
recognises £8 is 2/3 of the original amount, so finds 8 divided by 2/3 = £12 (oe)	**M1**
£12 cao	**A1**

Answer: £12

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