2.57-5 Number Puzzles and Logic Set E: 10-minute Pack

Total Marks

GL ASSESSMENT GL · Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 Compost mix A is made from topsoil and manure in the ratio 4:1. Compost mix B is made from topsoil and manure in the ratio 3:2. Ronke mixes 250 g of Mix A with 250 g of Mix B. How much manure is there in total in the new mixture?

(3)

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2 Anya is thinking of a two-digit number. The sum of its digits is 11. The tens digit is 3 more than the units digit. What is Anya's number?

(3)

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3 In a sequence, each term after the first two is the sum of the two terms directly before it. The 4th term is 15 and the 5th term is 24. Find the 1st term and the 6th term of the sequence.

(4)

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4 Harry is 9 years old. His cousin Elsie is 6 years older than him. How old was Elsie 4 years ago?

(2)

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Mark scheme · 2.57-5 Number Puzzles and Logic Set E: 10-minute Pack

Question 1

manure in mix A = 1/5 x 250 = 50 g oe	**M1**
manure in mix B = 2/5 x 250 = 100 g oe	**M1**
150 g cao	**A1**

Answer: 150 g

Question 2

sets up tens + units = 11 and tens = units + 3 oe	**M1**
substitutes to solve: (units + 3) + units = 11, so 2 x units = 8, units = 4 oe	**M1**
74 cao	**A1**

Answer: 74

Question 3

term 3 = term 5 - term 4 = 24 - 15 = 9 oe	**M1**
term 2 = term 4 - term 3 = 15 - 9 = 6, then term 1 = term 3 - term 2 = 9 - 6 = 3 oe	**M1**
1st term = 3 cao	**A1**
6th term = term 5 + term 4 = 24 + 15 = 39 cao	**A1**

Answer: 1st term = 3, 6th term = 39

Question 4

Elsie's age now = 9 + 6 = 15 oe	**M1**
11 cao	**A1**

Answer: 11

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