6.3 Algebra: Formulae, Sequences and Equations: 10-minute Pack

Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A sequence starts 2, 5, 8, 11, ...
(a) What is the rule? (b) What is the 12th term?

(2)

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2 A function machine subtracts 3 then multiplies by 5.

What is the output when the input is 16?

Answer: ___

(2)

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3 a and b are positive whole numbers with a + b = 16.

How many different pairs (a, b) are there? Count (1, 15) and (15, 1) as different pairs.

Answer: ___

(2)

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4 Simplify n + 6 + 3n + 7.

Answer: ___

(2)

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Mark scheme · 6.3 Algebra: Formulae, Sequences and Equations: 10-minute Pack

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

Question 1

rule add 3 each time or nth term 3n - 1 seen	**M1**
12th term 3 x 12 - 1 = 35 cao	**A1**

Answer: **Rule: add 3; 12th term = 35**

Question 2

first operation applied correctly	**M1**
65 cao	**A1**

Answer: **65**

Question 3

lists pairs systematically	**M1**
15 cao	**A1**

Answer: **15**

Question 4

collects the v terms or the numbers	**M1**
4n + 13 cao	**A1**

Answer: **4n + 13**

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