

1. Here are the first four terms in a number sequence.

5 8 11 14

Is 47 a term of the sequence?

You must give a reason for your answer.

1.

2. Here are the first four terms of an arithmetic sequence.

5 11 17 23

Is 75 a term of the sequence?

Explain how you got your answer.

2.

3. Here are the first five terms of an arithmetic sequence.

5 13 21 29 37

Is 72 a term of the sequence?

You must give a reason for your answer.

3.

4. Here are the first five terms in a number sequence.

9 16 23 30 37

Jola thinks that the number 71 is in this sequence.

Is Jola correct?

You must show how you get your answer.

4.

Answers

1. yes

M1: a method that could lead to the deduction e.g. add on a multiple of 3

C1: an argument e.g. shows 47 is in the sequence

2. no

M1: a method that could lead to the deduction e.g. add on a multiple of 6

C1: an argument e.g. shows 71 and 77 are in the sequence so 75 cannot be

3. no

M1: a method that could lead to the deduction e.g. add on a multiple of 8

C1: an argument e.g. shows 69 and 73 are in the sequence so 72 cannot be

4. no

M1: a method that could lead to the deduction e.g. add on a multiple of 7

C1: an argument e.g. shows 65 and 72 are in the sequence so 71 cannot be