

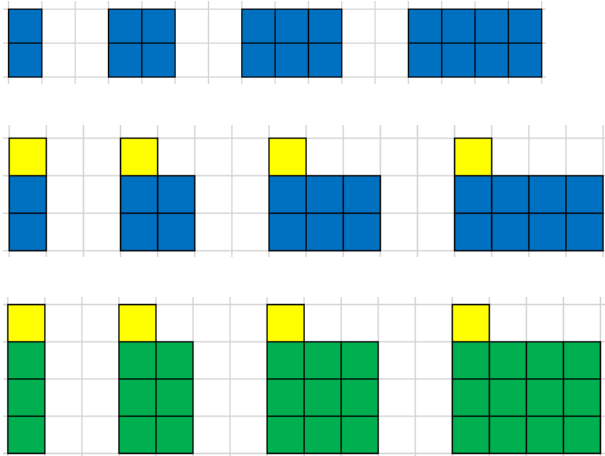
Summer Term Maths Year 10

Find the n th term of a linear sequence

Day
3

Week 12

1 Here are 3 sequences.



- a) Draw the 5th term for each sequence.
- b) Match each sequence to its expression for the n th term.
- $2n$ $3n+1$ $2n+1$
- c) Draw the pattern for a sequence whose n th term is $4n+1$

2 Here is a sequence

7, 12, 17, 22, 27 ...

- a) What is the common difference between each term?
- b) Which of the following is an expression for finding the n th term of the sequence?

$5n+7$ $5n+2$ $n+5$ $5n+5$

Explain your answer.

3 Here is a sequence: 24, 21, 18, 15, ...

Olu says the n th term is $3n+27$ because the common difference is 3.

Why is Olu's expression not right?

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5 Here is a sequence.

11, 13, 15, 17, 19



The n th term of the sequence is $n + 2$

What mistake has Dexter made?

Why do you think he might have made this mistake?

6 Find the n th term of each of the sequences.

a) 0, 2, 4, 6, ...

b) 4, 6, 8, 10, ...

c) 7, 9, 11, 13, ...

What do you notice?

7 Find the n th term of each of the following sequences.

a) 11, 15, 19, 23, 27

b) 5, 10, 15, 20, 25

c) 1, 4, 7, 10, 13

d) 9, 10, 11, 12, 13

e) -3, -1, 1, 3, 5

f) 10, 7, 4, 1, -2

g) 11, 9, 7, 5, 3

h) 0.7, 1.5, 2.3, 3.1, 3.9