

Home Learning - Wednesday 29th April

Grammar CPG grammar 10 mins/10mins check through.

Maths Maths No Prob' - Algebra Lesson 8 Writing Formulae - Workbook pages. 55, 56.

Writing Formulae

Lesson 8

In Focus

4,	7,	10,	13,	16,	...
1st	2nd	3rd	4th	5th	

Continue the pattern.



What is the 99th number in this number pattern?

Let's Learn

1 's method

1st	2nd	3rd	4th	5th	6th	7th
4,	7,	10,	13,	16,	19,	22,
	+3	+3	+3	+3	+3	+3

How can I find the 99th number?



2 's method

1st	2nd	3rd	4th	5th	6th	7th	...	99th
4	7	10	13	16	19	22		?
1+3	1+6	1+9	1+12	1+15	1+18	1+21		1+



1 × 3



2 × 3



1 + 99 × 3

3 's method

Let p stand for the n th number in the pattern.

$$p = 1 + 3n$$

This says that when $n = 2$, the 2nd number in the pattern is $1 + 3 \times 2 = 7$.

When $n = 6$, 6th number is $p = 1 + 3 \times 6 = 19$

When $n = 7$, 7th number is $p = 1 + 3 \times 7 = 22$

$p = 1 + 3n$ is a formula.

Guided Practice

1 Write a formula for the n th number in each pattern.

I will use T to stand for the n th number in a pattern.

(a) 4, 7, 10, 13, 16, ...

The formula is $T = 1 + 3n$.

(b) 2, 4, 6, 8, 10, ...

(c) 3, 5, 7, 9, 11, ...

(d) 5, 8, 11, 14, 17, ...

2 The formula to find the n th odd number is:

$$n\text{th odd number } x = 2n - 1$$

$$n = 1, 1\text{st odd number } x = 2 \times 1 - 1 = 1$$

$$n = 2, 2\text{nd odd number } x = 2 \times 2 - 1 = 3$$

(a) Find the 5th odd number.

(b) Find the 99th odd number.

(c) Find the sum of the first 10 odd numbers.

English 1hr Focus on Activity 1 & 2 from the attachment e.g. active/passive voice and reading comprehension (Happy for you to read your own book for half an hour instead if you did the reading comprehension yesterday). For writing either write the letter or chose one of the fun activities. If you chose the drawing, please label using powerful adjectives!

Project: Parliament 30 mins – By now you should have a good idea of what you are going to spend your money on and you have ranked the most-least important money for expenditure. Imagine you have £100 to spend across all the things. How much will you give to each? Ask an adult in your house if they agree with you. During a general election different parties argue what they will spend the money on and on how they will get it too! Just focus for now how you would spend it!

Maths Answers

Guided Practice

- 1 Write a formula for the n th number in each pattern.

I will use T to stand for the n th number in a pattern.



- (a) 4, 7, 10, 13, 16, ...

The formula is $T = 1 + 3n$.

- (b) 2, 4, 6, 8, 10, ... $T = 2n$

- (c) 3, 5, 7, 9, 11, ... $T = 1 + 2n$

- (d) 5, 8, 11, 14, 17, ... $T = 2 + 3n$

- 2 The formula to find the n th odd number is:

$$n\text{th odd number } x = 2n - 1$$

$$n = 1, \text{ 1st odd number } x = 2 \times 1 - 1 = 1$$

$$n = 2, \text{ 2nd odd number } x = 2 \times 2 - 1 = 3$$

- (a) Find the 5th odd number. **9**
 (b) Find the 99th odd number. **197**
 (c) Find the sum of the first 10 odd numbers. **100**

Complete Worksheet 8 - Page 55 - 56

- 2 The formula for the n th number in a sequence is:

$$2n + 4$$

- (a) Find the 4th number.

12

- (b) Find the 15th number.

34

- (c) Find the 100th number.

204

- (d) Find the sum of the first 10 numbers in the sequence.

6, 8, 10, 12, 14, 16, 18, 20, 22, 24

150

Worksheet 8

Writing Formulae

- 1 Let T stand for the n th number in each pattern.

(a)

n	1	2	3	4	5
T	3	6	9	12	15

$$T = 3n$$

(b)

n	1	2	3	4	5
T	5	9	13	17	21

$$T = 4n + 1$$

(c)

n	1	2	3	4	5
T	5	7	9	11	13

$$T = 2n + 3$$

(d)

n	1	2	3	4	5
T	2	7	12	17	22

$$T = 5n - 3$$