

Algebra

Multiplicative Sequences

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I am learning to identify and continue multiplicative sequences

Example: 10, 100, 1000, ...

Exercise 1

For each sequence below, find the rule that links the terms then use it to work out the next two terms in the sequence. Describe in words how you go from one number to the next number. Also write this rule using symbols.

1) 1, 2, 4, 8, ...

(8) 1, 5, 25, 125, ...

2) 3, 6, 12, 24, ...

(9) 2, 12, 72, ...

3) 1, 3, 9, 27, ...

(10) $\frac{1}{4}$, $\frac{1}{2}$, 1, 2, 4, ...

4) 10, 100, 1000, 10,000, ...

(11) 100, 10, 1, 0.1, ...

5) 64, 32, 16, 8, ...

(12) 5, -10, 20, -40, ...

6) 7, 14, 21, 28, ...

(13) 1, 4, 16, 64, ...

7) 66, 55, 44, 33, ...

(14) 1, -5, 25, ...

Exercise 2

Fill in the missing number.

15) $\frac{1}{4}$, 1, 4, $_$, 64, 256

(18) 0.3, 1.5, $_$, 37.5, 187.5

16) 1.5, 3, $_$, 12, 24

(19) 1000, -100, $_$, -1, 0.1

17) 0.125, 1, $_$, 64, 512

(20) 7, 14, $_$, 56, 112