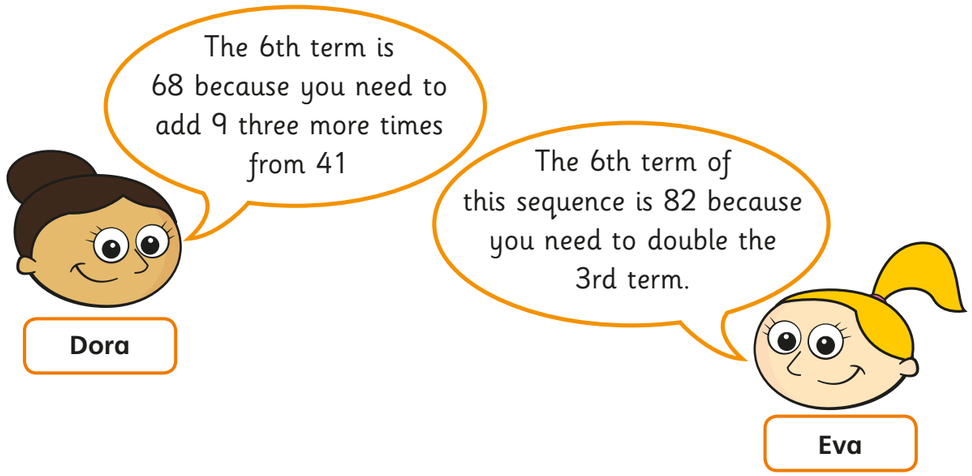
Find missing terms

H

1 Dora and Eva are finding missing terms in this sequence.
23, 32, 41 . . .



Who is correct? Explain how you know.

2 **a)** Find the next three terms of each sequence.

sequence A: 100, 92, 84, ☐, ☐, ☐

sequence B: 18, 35, 52, ☐, ☐, ☐

b) Find the 10th term of each sequence without working out the terms in between.

sequence A: ☐ sequence B: ☐

3 **a)** What is the last positive term in the sequence 46, 37, 28 . . .

The last positive term in the sequence is ☐

b) In which position is the first negative term?

4 Write the missing terms in each of these linear sequences.

a) 4, 16, ☐

b) 4, ☐, 16 . . .

c) 4, ☐, ☐, 16 . . .

d) 4, ☐, ☐, ☐, 16 . . .

e) 97, ☐, ☐, 82, ☐

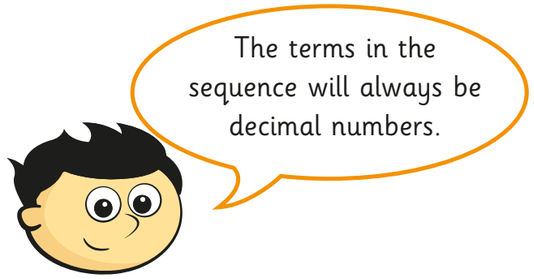
f) 4000, ☐, ☐, ☐, 5200, ☐

5 Write the missing terms in each of these non-linear sequences.

a) 1, 10, 100, 1000, ☐ . . .

b) 500, 100, ☐, 4 . . .

6 A sequence starts 0.7, 1.4, 2.1 . . .



Jack is incorrect.

a) Find the first integer term.

b) In which position will the first integer appear?

c) In which position will the second integer appear?

7 The 1st term of a linear sequence is 17

The 5th term of the sequence is 29

What is the 9th term of the sequence?

8 The 1st term of a sequence is 24. The 4th term is 192

Find the 2nd, 3rd and 5th term if the sequence is:

a) arithmetic

24, ☐, ☐, 192, ☐

b) geometric

24, ☐, ☐, 192, ☐

How many different sequences of any type can you create?

9 **a)** Write three different sequences that include both 2 and 10

b) Write three different sequences that include both 100 and 5

c) Compare answers with a partner.