Year 6 maths: Number patterns with big numbers, decimals and two-step rules (Easy)

Maths · Patterns and algebra
Level: Easy

Student: _____ Date: _____

Instructions
- There are 10 questions. Read each one carefully.
- Write your answers on this paper. Use the space under a question to work it out.
- A grown-up can read a question aloud — that's fine.
- The answers are at the end. Check them together when you have finished.

Questions

1. Count on in 5s from 14 990: 14 990, 14 995, 15 000, ___. What comes next?

Answer: ☐

Working:

2. What comes next? 10 300, 10 200, 10 100, ___

Circle one answer.

○ **A** 10 000 ○ **B** 9 000 ○ **C** 9 900 ○ **D** 10 090

3. A pattern starts 3, 5, 7, 9 and goes on adding 2. Which number will be in it?

Circle one answer.

○ **A** 50 ○ **B** 41 ○ **C** 40 ○ **D** 62

4. Which number is NOT in the pattern 6, 12, 18, 24, ...?

Circle one answer.

○ **A** 50 ○ **B** 60 ○ **C** 96 ○ **D** 120

5. Count back in 1000s from 100 000: 100 000, 99 000, 98 000, ___. What comes next?

Answer: ☐

Working:

6. Count on in 25s: 4 950, 4 975, 5 000, ___. What comes next?

Answer: ☐

Working:

7. Rule: add 4 each time. Start at 7. Which of these is in the pattern?

Circle one answer.

○ **A** 27 ○ **B** 38 ○ **C** 24 ○ **D** 30

8. What is the 8th term of 5, 12, 19, 26, ...?

Answer: ☐

Working:

9. What is the rule for 2, 7, 22, 67, ...?

Circle one answer.

○ **A** Multiply by 3, then add 1
○ **B** Add 5 each time
○ **C** Multiply by 3
○ **D** Multiply by 3, then subtract 1

10. A pattern starts at 15 and adds 8 each time. Which statement is true?

Circle one answer.

○ **A** Every term is even
○ **B** Every term is a multiple of 8
○ **C** The terms alternate odd, even
○ **D** Every term is odd

Answer key

Year 6 maths: Number patterns with big numbers, decimals and two-step rules (Easy) · Sheet 131449

1. 15 005
15 000 + 5 = 15 005.

2. A — 10 000
Counting back in 100s: 10 100 − 100 = 10 000.

3. B — 41
Adding 2 keeps the numbers odd, so only odd numbers appear. 41 is odd.

4. A — 50
The pattern counts in 6s, so every number is a multiple of 6. 50 is not.

5. 97 000
98 000 − 1 000 = 97 000.

6. 5025
5 000 + 25 = 5 025.

7. A — 27
7 + 4 = 11, 15, 19, 23, 27. Adding 4 keeps the numbers odd.

8. 54
The rule is add 7. The 8th term is 5 + 7 × 7 = 54 (seven steps).

9. A — Multiply by 3, then add 1
2 × 3 + 1 = 7, 7 × 3 + 1 = 22, 22 × 3 + 1 = 67.

10. D — Every term is odd
Adding 8 (even) never changes odd or even, so every term is odd.