Multiple choice questions - Sequences

Year: Year 7 · 10

Question 1 What is the next term of 6, 13, 20, 27, ...?

- ◯ **A.** 34
- ◯ **B.** 33
- ◯ **C.** 35
- ◯ **D.** 54

Question 2 What is the term-to-term rule for 80, 72, 64, 56?

- ◯ **A.** Add 8
- ◯ **B.** Subtract 8
- ◯ **C.** Divide by 8
- ◯ **D.** Subtract 7

Question 3 The nth term is $2n + 7$. What is the 5th term?

- ◯ **A.** 12
- ◯ **B.** 19
- ◯ **C.** 17
- ◯ **D.** 14

Question 4 What is the nth term of 5, 8, 11, 14?

- ◯ **A.** $n + 3$
- ◯ **B.** $3n + 5$
- ◯ **C.** $2n + 3$
- ◯ **D.** $3n + 2$

Question 5 What is the nth term of 9, 7, 5, 3?

- ◯ **A.** $11 - 2n$
- ◯ **B.** $2n + 7$
- ◯ **C.** $2n - 11$
- ◯ **D.** $9 - 2n$

Question 6 Which of these numbers is in the sequence $5n - 1$?

- ◯ **A.** 40
- ◯ **B.** 39
- ◯ **C.** 41
- ◯ **D.** 42

Question 7 What is the next square number after 49?

- ◯ **A.** 56
- ◯ **B.** 81
- ◯ **C.** 64
- ◯ **D.** 50

Question 8 What is the 6th triangular number (1, 3, 6, 10, ...)?

- ◯ **A.** 15
- ◯ **B.** 18
- ◯ **C.** 28
- ◯ **D.** 21

Question 9 A pattern needs $2n + 3$ tiles. How many tiles does pattern 20 need?

- ◯ **A.** 43
- ◯ **B.** 23
- ◯ **C.** 40
- ◯ **D.** 63

Question 10 What is the next term of 1, 1, 2, 3, 5, 8, ...?

- ◯ **A.** 11
- ◯ **B.** 13
- ◯ **C.** 12
- ◯ **D.** 16

Answer grid - Sequences

Year: Year 7

Question	Answer	Explanation
1	**A**	The difference is 7: 27 + 7 = 34.
2	**B**	Each term is 8 less than the one before.
3	**C**	2 x 5 + 7 = 17.
4	**D**	Difference 3; 3n gives 3, 6, 9, 12; add 2.
5	**A**	Difference -2; -2n gives -2, -4, ...; add 11.
6	**B**	5n - 1 = 39 gives n = 8.
7	**C**	8 x 8 = 64.
8	**D**	1, 3, 6, 10, 15, 21.
9	**A**	2 x 20 + 3 = 43.
10	**B**	5 + 8 = 13.