

Sequences and Series Quiz

Mathematics · Practice Test · 9 Questions

1. What is a sequence?

- A) An ordered list of numbers
- B) A random set of numbers
- C) A type of function
- D) A geometric shape

2. What is a series?

- A) The sum of the terms in a sequence
- B) A type of graph
- C) A method of factoring
- D) A polynomial equation

3. Which of these is an arithmetic sequence?

- A) 2, 4, 6, 8,...
- B) 1, 2, 4, 8,...
- C) 1, 3, 9, 27,...
- D) 1, 4, 9, 16,...

4. Which of these is a geometric sequence?

- A) 1, 2, 4, 8,...
- B) 1, 2, 3, 4,...
- C) 2, 4, 6, 8,...
- D) 1, 3, 5, 7,...

5. What is the common difference in the arithmetic sequence 5, 8, 11, 14,...

- A) 3
- B) 2
- C) 4
- D) 5

6. What is the common ratio in the geometric sequence 2, 6, 18, 54,...

- A) 3
- B) 2
- C) 4
- D) 5

7. The sum of an infinite geometric series converges if the absolute value of the common ratio is...?

- A) less than 1
- B) greater than 1
- C) equal to 1
- D) equal to 0

8. What is the formula for the nth term of an arithmetic sequence?

- A) $a + (n-1)d$
- B) $ar^{(n-1)}$
- C) $n/2(a + l)$
- D) $a(1-r^n)/(1-r)$

9. What is the formula for the sum of a finite geometric series?

- A) $a(1-r^n)/(1-r)$
- B) $a + (n-1)d$
- C) $n/2(a + l)$
- D) $ar^{(n-1)}$