ALASKA PRECALCULUS · UNIT 4 · 10 QUESTIONS

Limits, Sequences, and Series — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The sum of the first 6 terms of 5, 9, 13, … is**

- A 60
- B 150
- C 30
- D 90

Understand It with Pulse | Flag a mistake

2 **The sum of the infinite geometric series 20 + 10 + 5 + cdots is**

- A 30
- B 35
- C 40
- D 25

Understand It with Pulse | Flag a mistake

3 **For $a_n = n^2 + 1$, the term a_6 is**

- A 37
- B 36
- C 13
- D 25

Understand It with Pulse | Flag a mistake

4 **A sequence is defined by $a_1 = 2$ and $a_{n+1} = a_n + 5$. The term a_4 is**

- A 12
- B 17
- C 22
- D 7

Understand It with Pulse | Flag a mistake

5 The sum $\sum_{k=1}^{5} k$ is

- A 10
- B 15
- C 25
- D 5

Understand It with Pulse | Flag a mistake

6 The limit $\lim_{x \to \infty} \frac{2x + 9}{x - 1}$ equals

ANSWER _____

Understand It with Pulse | Flag a mistake

7 An arithmetic sequence has $a_1 = 4$ and common difference 6. The term a_{12} equals

ANSWER _____

Understand It with Pulse | Flag a mistake

8 **The sequence $(-1)^n$ as $n \to \infty$**

- **A** converges to 1
- **B** converges to -1
- **C** converges to 0
- **D** oscillates and diverges

Understand It with Pulse | Flag a mistake

9 **Find** $\lim_{x \to \infty} \frac{3x + 2}{6x - 1}$.

- **A** $\frac{1}{2}$
- **B** 3
- **C** 2
- **D** $\frac{1}{3}$

Understand It with Pulse | Flag a mistake

10 **The sum 2 + 4 + 8 is**

A 12

B 16

C 14

D 10

Understand It with Pulse | Flag a mistake

ANSWER KEY

1.	D	**5.**	B	**9.**	A
2.	C	**6.**	2	**10.**	C
3.	A	**7.**	70		
4.	B	**8.**	D		

© 2026 Brett Robbins. All Rights Reserved.