NOVA SCOTIA CALCULUS 12 · UNIT A · 10 QUESTIONS

Limits and Continuity — 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 **Find the limit as x approaches 7 of $x^2 + 3x$, giving a whole number .**

ANSWER _____

Understand It with Pulse | Flag a mistake

2 **Find the limit as x approaches 10 of $x^2 + 2x$, giving a whole number .**

ANSWER _____

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3 **Find the limit as x approaches 4 of $x^2 + 5x$, giving a whole number .**

ANSWER _____

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4 **The limit as x approaches infinity of $\frac{1}{x}$ equals**

- A 0
- B 1
- C infinity
- D -1

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5 **To evaluate a limit with a $\frac{0}{0}$ form , a first step can be**

- A add 1 to x
- B factor and cancel
- C multiply by zero
- D ignore the denominator

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6 **A function is continuous at a point if its graph has**

- A a corner at that point
- B a vertical asymptote
- C no break at that point
- D a horizontal asymptote

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7 **What is the limit of f(x) + g(x) as x approaches a, if lim f(x) = 3 and lim g(x) = 5?**

- A 15
- B 0
- C 5
- D 8

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8 **If the limit of a function at a point does not exist, the function**

- A cannot be continuous there
- B must be a line
- C must be zero there
- D has a derivative there

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9 **The squeeze theorem is used when a function is trapped between**

- A two lines
- B two functions with the same limit
- C a maximum and a minimum
- D zero and infinity

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10 **A horizontal asymptote describes behaviour as x approaches**

A zero only

B a hole

C infinity

D a corner

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ANSWER KEY

1. 70
2. 120
3. 36
4. A
5. B
6. C
7. D
8. A
9. B
10. C

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