Take Test: W3 Quiz

Test Information

Description

Instructions

Multiple Attempts Not allow

Force Completion This test can be saved and resumed later.

Question Completion Status:

QUESTION 1

4 points Save Answer

Because of their connection with secant lines, tangents, and instantaneous rates, limits of the form $\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ occur frequently in calculus. Evaluate this limit for the given value of x and function f.

$f(x) = \frac{2}{x}$, $x = 8$

- Does not exist
- $-\frac{1}{32}$
- $\frac{1}{4}$
- -16

QUESTION 2

4 points Save Answer

Because of their connection with secant lines, tangents, and instantaneous rates, limits of the form $\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ occur frequently in calculus. Evaluate this limit for the given value of x and function f.

$f(x) = 3\sqrt{x} + 5$, $x = 16$

- $\frac{3}{8}$
- 24
- Does not exist
- 6

QUESTION 3

4 points Save Answer

Find the limit, if it exists.

$\lim_{x\to -5}\frac{x^2-2x-15}{x+3}$

- -8
- 0
- 5
- Does not exist

QUESTION 4

4 points Save Answer

Find the limit, if it exists.

$\lim_{x\to -5}\frac{x^2-12x+35}{x^2-12x+35}$

- 1
- - 6
- - 1
- Does not exist

QUESTION 5

4 points Save Answer

Find the limit, if it exists.

$\lim_{h\to 0}\frac{17x+h}{x^3(x-h)}$

- Does not exist
- $\frac{17}{x^4}$
- $\frac{17}{x^3}$
- 17x

QUESTION 6

4 points Save Answer

Find the limit if it exists.

$\lim_{x\to -3}\sqrt{9x+89}$

- $-\sqrt{62}$
- 62
- $\sqrt{62}$
- -62

QUESTION 7

4 points Save Answer

Find the limit, if it exists.

$\lim_{x\to 1}\frac{x^2-1}{x^2-4x+3}$

- Does not exist
- - 1
- $-\frac{1}{2}$
- 0

QUESTION 8

4 points Save Answer

Find the limit.

$\lim_{x\to 2}(x^3 + 5x^2 - 7x + 1)$

- does not exist
- 0
- 15
- 29

QUESTION 9

4 points Save Answer

Find the limit if it exists.

$\lim_{x\to 256} x^{3/4}$

- 192
- 256
- $\frac{3}{4}$
- 64

Click Save and Submit to save and submit. Click Save All Answers to save all answers.

Save All Answers **Save and Submit**

Because of their connection with secant lines, tangents, and instantaneous rates, limits of the form $\lim_{h \to 0} \frac{f(x+h)-f(x)}{h}$ occur frequently in calculus. Evaluate this limit for the given value of x and function f.

$f(x) = \sqrt{x}$, $x = 3$

- $\frac{3}{2}$
- $\frac{\sqrt{3}}{3}$
- Does not exist
- $\frac{\sqrt{3}}{6}$

Question Completion Status:

QUESTION 11

4 points Save Answer

Find the limit, if it exists.

$\lim_{x \to 6} \frac{|6-x|}{6-x}$

- Does not exist
- 1
- 0
- -1

QUESTION 12

4 points Save Answer

Because of their connection with secant lines, tangents, and instantaneous rates, limits of the form $\lim_{h \to 0} \frac{f(x+h)-f(x)}{h}$ occur frequently in calculus. Evaluate this limit for the given value of x and function f.

$f(x) = 5\sqrt{x}$, $x = 4$

- Does not exist
- $\frac{5}{4}$
- 5
- 10

QUESTION 13

4 points Save Answer

Find the limit.

$\lim_{x \to -1} \frac{x}{3x+2}$

- $-\frac{1}{5}$
- 0
- 1
- does not exist

QUESTION 14

4 points Save Answer

Find the limit, if it exists.

$\lim_{x \to 1} \frac{x^2+7x-8}{x-1}$

- 0
- 9
- 7
- Does not exist

QUESTION 15

4 points Save Answer

Find the limit if it exists.

$\lim_{x \to -2} (x+3)^2(x-3)^3$

- 1
- -125
- 25
- -3125

QUESTION 16

4 points Save Answer

Find the limit, if it exists.

$\lim_{h \to 0} \frac{2}{\sqrt{3h+4}+2}$

- 1/2
- 2
- Does not exist
- 1

QUESTION 17

4 points Save Answer

Find the limit, if it exists.

$\lim_{x \to 3} \frac{x^2+3x-18}{x^2-9}$

- $-\frac{1}{2}$
- $\frac{3}{2}$
- Does not exist
- 0

QUESTION 18

4 points Save Answer

Because of their connection with secant lines, tangents, and instantaneous rates, limits of the form $\lim_{h \to 0} \frac{f(x+h)-f(x)}{h}$ occur frequently in calculus. Evaluate this limit for the given value of x and function f.

$f(x) = \frac{x}{3} + 1$, $x = 6$

- Does not exist
- 2
- $\frac{1}{3}$
- 3

QUESTION 19

4 points Save Answer

Find the limit.

$\lim_{x \to 2} (3x^5 - 2x^4 + 4x^3 + x^2 + 5)$

- 57
- 169
- 41
- 105

QUESTION 20

4 points Save Answer

Find the limit, if it exists.

$\lim_{x \to 0} \frac{\sqrt{1+x}-1}{x}$

- 0

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Save All Answers | **Save and Submit**

QUESTION 21

4 points Save Answer

Find the limit, if it exists.

$\lim_{h \to 0} \frac{(1+h)^{1/3} - 1}{h}$

- 0
- Does not exist
- 1/3
- 3

QUESTION 22

Question Completion Status:

Find the limit, if it exists.

$\lim_{h \to 0} \frac{(x+h)^3 - x^3}{h}$

- $3x^2 + 3xh + h^2$
- Does not exist
- $3x^2$
- 0

QUESTION 23

4 points Save Answer

Find the limit if it exists.

$\lim_{x \to 3} (x + 24)^{1/3}$

- -3
- 9
- 1
- 3

QUESTION 24

4 points Save Answer

Find the limit.

$\lim_{x \to 7} \sqrt{x^2 + 8x + 16}$

- ±11
- does not exist
- 121
- 11

QUESTION 25

4 points Save Answer

Find the limit if it exists.

$\lim_{x \to \frac{3}{4}} 4x\left(x - \frac{1}{2}\right)$

- $\frac{3}{16}$
- 1
- $\frac{3}{4}$
- $\frac{15}{4}$

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Save All Answers **Save and Submit**