Take Test: W3 Quiz

Test Information

Description

Instructions

Multiple Attempts Not allowed. This test can only be taken once.

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

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

- $\frac{3}{8}$
- 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 Completion Status:

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

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

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

- $-\sqrt{62}$
- 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 Completion Status:

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.

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 11 **4 points** Save Answer

Find the limit, if it exists.

Question Completion Status:

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

- 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

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

- $-\frac{1}{5}$
- 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 Completion Status:

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

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

- $-\frac{1}{2}$
- $\frac{3}{2}$
- 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 Completion Status:

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
- Does not exist
- 1/2

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

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

4 points Save Answer

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 Completion Status:

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.

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

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

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

Question Completion Status:

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