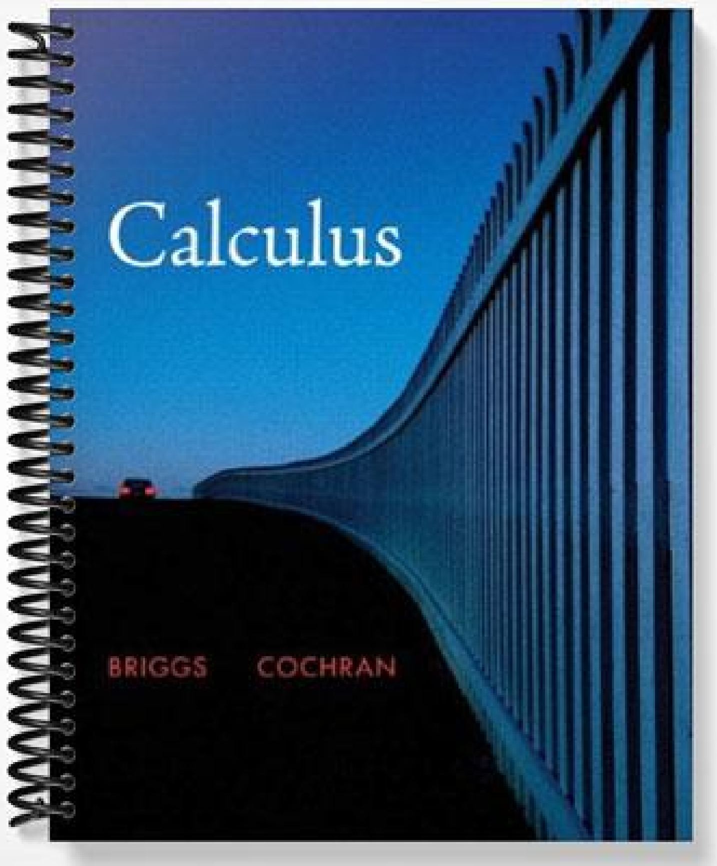
TEST BANK



MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Find the average velocity of the function over the given interval.

1) $y = x^2 + 2x$, [1, 4] — 1) ________

A) 7 B) 6 C) 8 D) $\frac{21}{4}$

2) $y = 4x^3 - 6x^2 - 6$, [6, 8] — 2) ________

A) 127 B) $\frac{829}{4}$ C) 829 D) 508

3) $y = \sqrt{2x}$, [2, 8] — 3) ________

A) $\frac{1}{3}$ B) $-\frac{3}{10}$ C) 2 D) 7

4) $y = \frac{3}{x - 2}$, [4, 7] — 4) ________

A) 7 B) $-\frac{3}{10}$ C) 2 D) $\frac{1}{3}$

5) $y = 4x^2$, $\left[0, \frac{7}{4}\right]$ — 5) ________

A) 2 B) $\frac{1}{3}$ C) 7 D) $-\frac{3}{10}$

6) $y = -3x^2 - x$, [5, 6] — 6) ________

A) $\frac{1}{2}$ B) -34 C) -2 D) $-\frac{1}{6}$

7) $h(t) = \sin(3t)$, $\left[0, \frac{\pi}{6}\right]$ — 7) ________

A) $-\frac{6}{\pi}$ B) $\frac{\pi}{6}$ C) $\frac{6}{\pi}$ D) $\frac{3}{\pi}$

8) $g(t) = 5 + \tan t$, $\left[-\frac{\pi}{4}, \frac{\pi}{4}\right]$ — 8) ________

A) $-\frac{16}{11}$ B) $-\frac{4}{\pi}$ C) 0 D) $\frac{4}{\pi}$

Use the table to find the instantaneous velocity of y at the specified value of x.

9) x = 1.

9)

x	y
0	0
0.2	0.02
0.4	0.08
0.6	0.18
0.8	0.32
1.0	0.5
1.2	0.72
1.4	0.98

A) 2 B) 1 C) 0.5 D) 1.5

10) x = 1. 10) ______

x	y
0	0
0.2	0.01
0.4	0.04
0.6	0.09
0.8	0.16
1.0	0.25
1.2	0.36
1.4	0.49

A) 2 B) 1.5 C) 0.5 D) 1

11) x = 1. 11) ______

x	y
0	0
0.2	0.12
0.4	0.48
0.6	1.08
0.8	1.92
1.0	3
1.2	4.32
1.4	5.88

A) 8 B) 6 C) 2 D) 4

12) x = 2. 12) ______

x	y
0	10
0.5	38
1.0	58
1.5	70
2.0	74
2.5	70
3.0	58
3.5	38
4.0	10

A) -8 B) 0 C) 8 D) 4

13) x = 1.

13)

x	y
0.900	-0.05263
0.990	-0.00503
0.999	-0.0005
1.000	0.0000
1.001	0.0005
1.010	0.00498
1.100	0.04762

A) -0.5   B) 0.5   C) 1   D) 0

Find the slope of the curve for the given value of x.

14) $y = x^2 + 5x$, $x = 4$ 14) ______

A) slope is $\frac{1}{20}$ B) slope is 13

C) slope is $-\frac{4}{25}$ D) slope is -39

15) $y = x^2 + 11x - 15$, $x = 1$ 15) ______

A) slope is $\frac{1}{20}$ B) slope is -39

C) slope is $-\frac{4}{25}$ D) slope is 13

16) $y = x^3 - 9x$, $x = 1$ 16) ______

A) slope is 3   B) slope is -6

C) slope is -3   D) slope is 1

17) $y = x^3 - 2x^2 + 4$, $x = 1$ 17) ______

A) slope is 0   B) slope is -1

C) slope is --1   D) slope is 1

18) $y = -4 - x^3$, $x = -1$ 18) ______

A) slope is -1   B) slope is 0

C) slope is -3   D) slope is 3

Solve the problem.

19) Given $\lim_{x\to 0^-} f(x) = L_l$, $\lim_{x\to 0^+} f(x) = L_r$, and $L_l \neq L_r$, which of the following statements is true? 19) ______

I. $\lim_{x\to 0} f(x) = L_l$

II. $\lim_{x\to 0} f(x) = L_r$

III. $\lim_{x\to 0} f(x)$ does not exist.

A) II   B) I   C) none   D) III

20) Given $\lim_{x\to 0^-}$

20) $\lim_{x \to 0^-} f(x) = L_l$, $\lim_{x \to 0^+} f(x) = L_r$, and $L_l = L_r$, which of the following statements is false?

I. $\lim_{x \to 0} f(x) = L_l$

II. $\lim_{x \to 0} f(x) = L_r$

III. $\lim_{x \to 0} f(x)$ does not exist.

A) I B) none C) II D) III

20) ____

21) If $\lim_{x \to 0} f(x) = L$, which of the following expressions are true?

21) ______

I. $\lim_{x \to 0^-} f(x)$ does not exist.

II. $\lim_{x \to 0^+} f(x)$ does not exist.

III. $\lim_{x \to 0^-} f(x) = L$

IV. $\lim_{x \to 0^+} f(x) = L$

A) III and IV only
B) I and IV only
C) II and III only
D) I and II only

22) What conditions, when present, are sufficient to conclude that a function f(x) has a limit as x approaches some value of a?

22) ______

A) The limit of $f(x)$ as $x \to a$ from the left exists, the limit of $f(x)$ as $x \to a$ from the right exists, and these two limits are the same.

B) f(a) exists, the limit of $f(x)$ as $x \to a$ from the left exists, and the limit of $f(x)$ as $x \to a$ from the right exists.

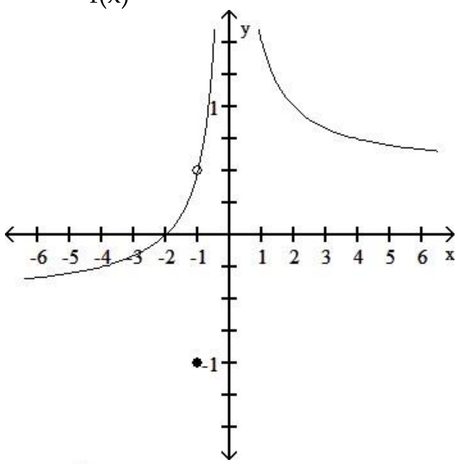
C) The limit of $f(x)$ as $x \to a$ from the left exists, the limit of $f(x)$ as

$x \to a$ from the right exists, and at least one of these limits is the same as f(a).

D) Either the limit of $f(x)$ as $x \to a$ from the left exists or the limit of $f(x)$ as $x \to a$ from the right exists

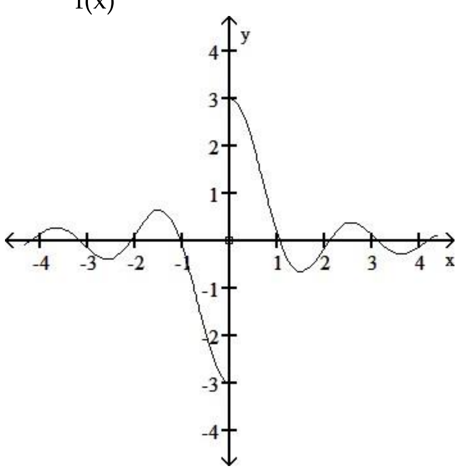
Use the graph to evaluate the limit.

23) $\lim\limits_{x \to -1} f(x)$ 23) ______



A) $\frac{1}{2}$ B) ∞ C) -1 D) $-\frac{1}{2}$

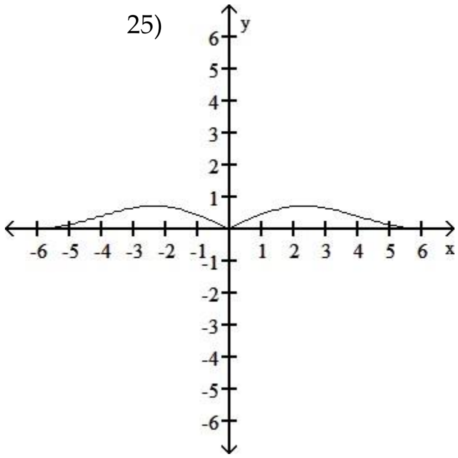
24) $\lim\limits_{x \to 0} f(x)$ 24) ______



A) -3 B) 0
C) 3 D) does not exist

25) $\lim\limits_{x \to 0} f(x)$

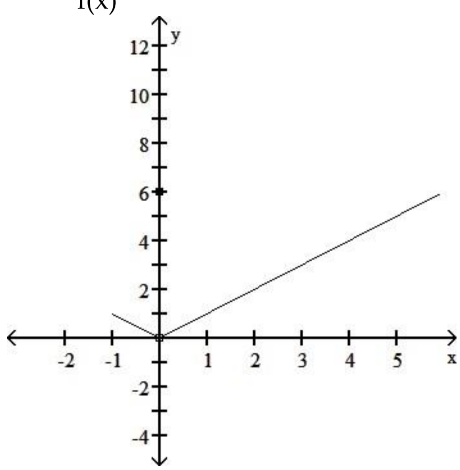
25)



A) -1
B) 0
C) 1
D) does not exist

26) $\lim_{x \to 0} f(x)$

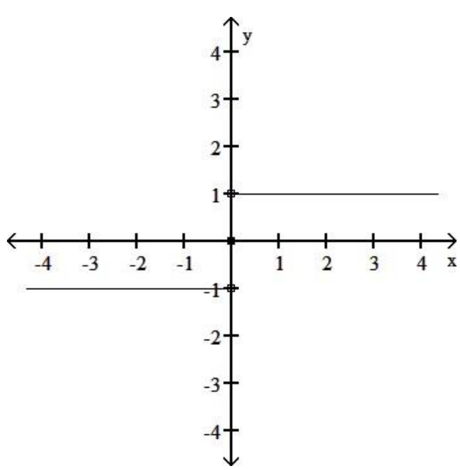
26) ______



A) 0
B) does not exist
C) -1
D) 6

27) $\lim_{x \to 0} f(x)$

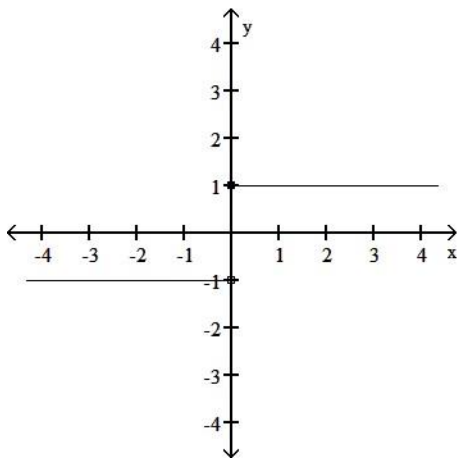
27) ______



A) ∞
B) -1
C) does not exist
D) 1

28) $\lim_{x \to 0} f(x)$

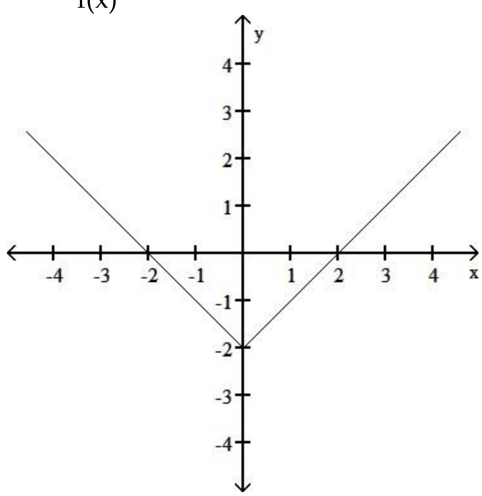
28) ______



A) -1
B) 1
C) does not exist
D) ∞

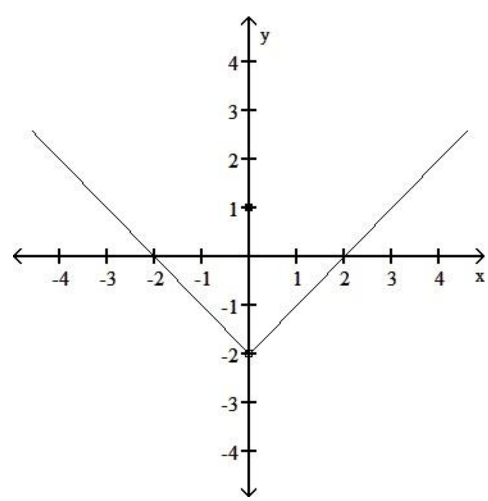
29) $\lim_{x \to 0} f(x)$

29) ______



A) -2
B) 0
C) 2
D) does not exist

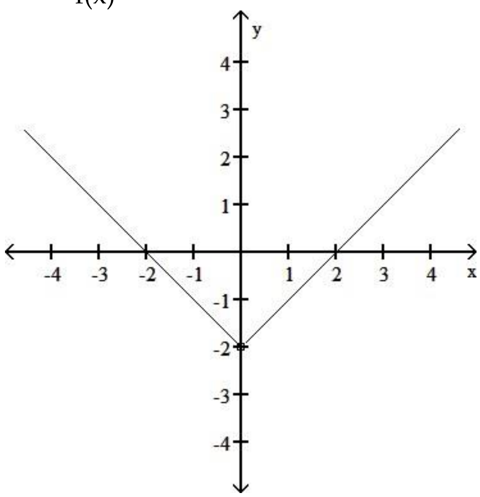
30) $\lim_{x \to 0} f(x)$



30) ______

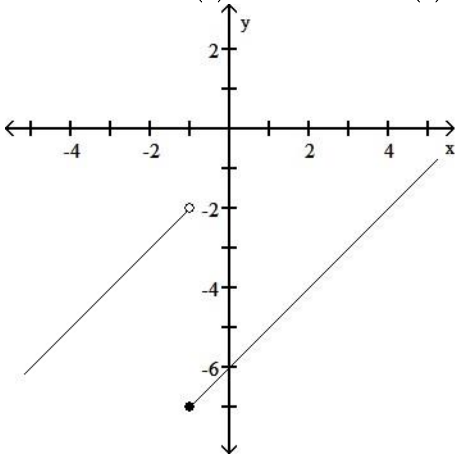
A) 1
B) does not exist
C) -2
D) 0

31) $\lim_{x \to 0} f(x)$ 31) ______



A) 2
B) does not exist
C) -2
D) -1

32) Find $\lim_{x \to (-1)^-} f(x)$ and $\lim_{x \to (-1)^+} f(x)$ 32) ______



A) -7; -5
B) -2; -7
C) -7; -2
D) -5; -2

Use the table of values of f to estimate the limit.

33) Let $f(x) = x^2 + 8x - 2$, find $\lim_{x \to 2} f(x)$. 33) ______

x	1.9	1.99	1.999	2.001	2.01	2.1
f(x)						

A)

x	1.9	1.99	1.999	2.001	2.01	2.1
f(x)	16.692	17.592	17.689	17.710	17.808	18.789

; limit = 17.70

B)

x	1.9	1.99	1.999	2.001	2.01	2.1
f(x)	16.810	17.880	17.988	18.012	18.120	19.210

; limit = 18.0

C)

x	1.9	1.99	1.999	2.001	2.01	2.1
f(x)	5.043	5.364	5.396	5.404	5.436	5.763

; limit = 5.40

D)

x	1.9	1.99	1.999	2.001	2.01	2.1
f(x)	5.043	5.364	5.396	5.404	5.436	5.763

; limit = ∞

34) Let $f(x) = \frac{x - 4}{\sqrt{x} - 2}$, find $\lim_{x \to 4} f(x)$. 34) ______

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)						

A)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	1.19245	1.19925	1.19993	1.20007	1.20075	1.20745

;
limit = ∞

B)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	5.07736	5.09775	5.09978	5.10022	5.10225	5.12236

;
limit = 5.10

C)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	1.19245	1.19925	1.19993	1.20007	1.20075	1.20745

;
limit = 1.20

D)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	3.97484	3.99750	3.99975	4.00025	4.00250	4.02485

;
limit = 4.0

35) Let $f(x) = x^2 - 5$, find $\lim_{x \to 0} f(x)$. 35) ______

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)						

A)

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)	−4.9900	−4.9999	−5.0000	−5.0000	−4.9999	−4.9900

;
limit = -5.0

B)

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)	−2.9910	−2.9999	−3.0000	−3.0000	−2.9999	−2.9910

;
limit = -3.0

C)

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)	−1.4970	−1.4999	−1.5000	−1.5000	−1.4999	−1.4970

;
limit = ∞

D)

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)	−1.4970	−1.4999	−1.5000	−1.5000	−1.4999	−1.4970

;

limit = -15.0

36) Let $f(x) = \frac{x - 4}{x^2 - 5x + 4}$, find $\lim_{x \to 4} f(x)$. 36) ______

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)						

A)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	0.4448	0.4344	0.4334	0.4332	0.4322	0.4226

; limit = 0.4333

B)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	−0.3448	−0.3344	−0.3334	−0.3332	−0.3322	−0.3226

; limit = -0.3333

C)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	0.2448	0.2344	0.2334	0.2332	0.2322	0.2226

; limit = 0.2333

D)

x	3.9	3.99	3.999	4.001	4.01	4.1
f(x)	0.3448	0.3344	0.3334	0.3332	0.3322	0.3226

; limit = 0.3333

37) Let $f(x) = \frac{x^2 + 2x - 15}{x^2 - 2x - 3}$, find $\lim_{x \to 3} f(x)$. 37) ______

x	2.9	2.99	2.999	3.001	3.01	3.1
f(x)						

A)

x	2.9	2.99	2.999	3.001	3.01	3.1
f(x)	−0.9048	−0.9900	−0.9990	−1.0010	−1.0101	−1.1053

; limit = -1

B)

x	2.9	2.99	2.999	3.001	3.01	3.1
f(x)	2.0256	2.0025	2.0003	1.9998	1.9975	1.9756

; limit = 2

C)

x	2.9	2.99	2.999	3.001	3.01	3.1
f(x)	2.1256	2.1025	2.1003	2.0998	2.0975	2.0756

; limit = 2.1

D)

x	2.9	2.99	2.999	3.001	3.01	3.1
f(x)	1.9256	1.9025	1.9003	1.8998	1.8975	1.8756

; limit = 1.9

38) Let $f(x) = \frac{\sin(5x)}{x}$, find $\lim_{x \to 0} f(x)$. 38)

x	−0.1	−0.01	−0.001	0.001	0.01	0.1
f(x)		4.99791693			4.99791693	

A) limit = 5
B) limit = 0
C) limit does not exist
D) limit = 4.5

39) Let $f(\theta) = \frac{\cos(5\theta)}{\theta}$, find $\lim_{\theta \to 0} f(\theta)$. 39) ______

x	-0.1	-0.01	-0.001	0.001	0.01	0.1
f(θ)	-8.7758256					8.7758256

A) limit = 8.7758256
B) limit = 5
C) limit = 0
D) limit does not exist

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Provide an appropriate response.

40) It can be shown that the inequalities $1 - \frac{x^2}{6} < \frac{x \sin(x)}{2 - 2\cos(x)} < 1$ hold for all values of x close to zero. What, if anything, does this tell you about $\frac{x \sin(x)}{2 - 2\cos(x)}$? Explain. 40) ____________

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

41) Write the formal notation for the principle "the limit of a quotient is the quotient of the limits" and include a statement of any restrictions on the principle. 41) ______

A) $\lim_{x \to a} \frac{g(x)}{f(x)} = \frac{g(a)}{f(a)}$.

B) If $\lim_{x \to a} g(x) = M$ and $\lim_{x \to a} f(x) = L,$ then $\lim_{x \to a} \frac{g(x)}{f(x)} = \frac{\lim_{x \to a} g(x)}{\lim_{x \to a} f(x)} = \frac{M}{L},$ provided that $f(a) \neq 0.$

C) If $\lim_{x \to a} g(x) = M$ and $\lim_{x \to a} f(x) = L,$ then $\lim_{x \to a} \frac{g(x)}{f(x)} = \frac{\lim_{x \to a} g(x)}{\lim_{x \to a} f(x)} = \frac{M}{L},$ provided that $L \neq 0.$

D) $\lim_{x \to a} \frac{g(x)}{f(x)} = \frac{g(a)}{f(a)}$, provided that $f(a) \neq 0.$

42) Provide a short sentence that summarizes the general limit principle given by the formal notation $\lim_{x \to a} [f(x) \pm g(x)] = \lim_{x \to a} f(x) \pm \lim_{x \to a} g(x) = L \pm M,$ given that $\lim_{x \to a} f(x) = L$ and $\lim_{x \to a} g(x) = M.$ 42) ______

A) The limit of a sum or a difference is the sum or the difference of the limits.
B) The sum or the difference of two functions is the sum of two limits.
C) The limit of a sum or a difference is the sum or the difference of the functions.
D) The sum or the difference of two functions is continuous.

43) The statement "the limit of a constant times a function is the constant times the limit" follows from a combination of two fundamental limit principles. What are they? 43) ______
A) The limit of a function is a constant times a limit, and the limit of a constant is the constant.
B) The limit of a product is the product of the limits, and the limit of a quotient is the quotient of the limits.
C) The limit of a constant is the constant, and the limit of a product is the product of the limits.
D) The limit of a product is the product of the limits, and a constant is continuous.

Find the limit.

44) $\lim\limits_{x \to 18} \sqrt{2}$ 44) ______
A) 18 B) $3\sqrt{2}$ C) $\sqrt{2}$ D) 2

45) $\lim\limits_{x \to -9} (6x - 10)$ 45) ______
A) -44 B) 64 C) -64 D) 44

46) $\lim\limits_{x \to 18} (19 - 3x)$ 46) ______
A) 73 B) -73 C) 35 D) -35

Give an appropriate answer.

47) Let $\lim\limits_{x \to -3} f(x) = 1$ and $\lim\limits_{x \to -3} g(x) = -10$. Find $\lim\limits_{x \to -3} [f(x) - g(x)]$. 47) ______
A) -9 B) -3 C) 1 D) 11

48) Let $\lim\limits_{x \to 7} f(x) = 4$ and $\lim\limits_{x \to 7} g(x) = 5$. Find $\lim\limits_{x \to 7} [f(x) \cdot g(x)]$. 48) ______
A) 7 B) 20 C) 9 D) 5

49) Let $\lim\limits_{x \to -8} f(x) = -7$ and $\lim\limits_{x \to -8} g(x) = -4$. Find $\lim\limits_{x \to -8} \frac{f(x)}{g(x)}$. 49) ______
A) -3 B) $\frac{7}{4}$ C) $\frac{4}{7}$ D) -8

50) Let $\lim\limits_{x \to -4} f(x) = 121$. Find $\lim\limits_{x \to -4} \sqrt{f(x)}$. 50) ______
A) 11 B) 121 C) -4 D) 3.3166

51) Let $\lim_{x \to 6} f(x) = 2$ and $\lim_{x \to 6} g(x) = 5$. Find $\lim_{x \to 6} [f(x) + g(x)]^2$. 51) ______

A) 49 B) 7 C) -3 D) 29

52) Let $\lim_{x \to 7} f(x) = 32$. Find $\lim_{x \to 7} \sqrt[5]{f(x)}$. 52) ______

A) 7 B) 2 C) 32 D) 5

53) Let $\lim_{x \to -7} f(x) = 2$ and $\lim_{x \to -7} g(x) = 3$. Find $\lim_{x \to -7} \left[\frac{8f(x) - 5g(x)}{4 + g(x)}\right]$. 53) ______

A) -7 B) - 1 C) $\frac{31}{7}$ D) $\frac{1}{7}$

Find the limit.

54) $\lim_{x \to 2} (x^3 + 5x^2 - 7x + 1)$ 54) ______

A) 29 B) 15
C) 0 D) does not exist

55) $\lim_{x \to 2} (2x^5 - 3x^4 - 4x^3 + x^2 - 5)$ 55) ______

A) 79 B) -49 C) 47 D) -17

56) $\lim_{x \to -1} \frac{x}{3x + 2}$ 56) ______

A) does not exist B) $-\frac{1}{5}$
C) 1 D) 0

57) $\lim_{x \to 0} \frac{x^3 - 6x + 8}{x - 2}$ 57) ______

A) Does not exist B) 0
C) -4 D) 4

58) $\lim_{x \to 1} \frac{3x^2 + 7x - 2}{3x^2 - 4x - 2}$ 58) ______

A) $-\frac{8}{3}$ B) Does not exist
C) 0 D) $-\frac{7}{4}$

59) $\lim_{x \to -2} (x + 3)^2(x - 1)^3$ 59) ______

A) -675 B) -27 C) -25 D) -1

60) $\lim_{x \to 5} \sqrt{x^2 + 2x + 1}$ 60) ______

A) ±6 B) does not exist
C) 36 D) 6

61) $\lim_{x \to -1} \sqrt{6x + 54}$ 61) ______

A) $4\sqrt{3}$ B) 48 C) $-4\sqrt{3}$ D) -48

62) $\lim_{h \to 0} \frac{2}{\sqrt{3h + 4} + 2}$ 62) ______

A) 1/2 B) 2
C) Does not exist D) 1

63) $\lim_{x \to 0} \frac{\sqrt{1 + x} - 1}{x}$ 63) ______

A) 1/4 B) 0
C) 1/2 D) Does not exist

Determine the limit by sketching an appropriate graph.

64) $\lim_{x \to 6^-} f(x)$, where $f(x) = \begin{cases} -2x - 6 & \text{for } x < 6 \\ 4x - 5 & \text{for } x \geq 6 \end{cases}$ 64) ______

A) -4 B) -5 C) 19 D) -18

65) $\lim_{x \to 6^+} f(x)$, where $f(x) = \begin{cases} -4x - 3 & \text{for } x < 6 \\ 5x - 2 & \text{for } x \geq 6 \end{cases}$ 65) ______

A) -2 B) -27 C) 28 D) -1

66) $\lim_{x \to 4^+} f(x)$, where $f(x) = \begin{cases} x^2 + 4 & \text{for } x \neq 4 \\ 0 & \text{for } x = 4 \end{cases}$ 66) ______

A) 20 B) 0 C) 12 D) 16

67) $\lim_{x \to 5^-} f(x)$, where $f(x) = \begin{cases} \sqrt{16 - x^2} & 0 \leq x < 4 \\ 4 & 4 \leq x < 5 \\ 5 & x = 5 \end{cases}$ 67) ______

A) Does not exist B) 0
C) 4 D) 5

68) $\lim_{x \to -7^+} f(x)$, where $f(x) = \begin{cases} x & -7 \leq x < 0, \text{ or } 0 < x \leq 3 \\ 1 & x = 0 \\ 0 & x < -7 \text{ or } x > 3 \end{cases}$ 68) ______

A) 7 B) -0
C) -7 D) Does not exist

Find the limit, if it exists.

69) $\lim_{x \to 0} \frac{x^3 + 12x^2 - 5x}{5x}$ 69) ______

A) 5 B) Does not exist
C) -1 D) 0

70) $\lim_{x \to 1} \frac{x^4 - 1}{x - 1}$ 70) ______

A) 4 B) 2
C) Does not exist D) 0

71) $\lim_{x \to 10} \frac{x^2 - 100}{x - 10}$ 71) ______

A) 1 B) 20
C) 10 D) Does not exist

72) $\lim_{x \to -9} \frac{x^2 + 17x + 72}{x + 9}$ 72) ______

A) Does not exist B) 306
C) 17 D) -1

73) $\lim_{x \to 5} \frac{x^2 + 3x - 40}{x - 5}$ 73) ______

A) 3 B) Does not exist
C) 0 D) 13

74) $\lim_{x \to 2} \frac{x^2 + 2x - 8}{x^2 - 4}$ 74) ______

A) $-\frac{1}{2}$ B) Does not exist
C) $\frac{3}{2}$ D) 0

75) $\lim_{x \to 3} \frac{x^2 - 9}{x^2 - 7x + 12}$ 75) ______

A) Does not exist B) - 3
C) - 6 D) 0

76) $\lim_{x \to 2} \frac{x^2 - 5x + 6}{x^2 + 3x - 10}$ 76) ______

A) $-\frac{1}{7}$ B) $\frac{5}{7}$
C) Does not exist D) $\frac{1}{7}$

77) $\lim_{h \to 0} \frac{(x + h)^3 - x^3}{h}$ 77) ______

A) Does not exist B) $3x^2$
C) 0 D) $3x^2 + 3xh + h^2$

78) $\lim_{x \to 9} \frac{|9 - x|}{9 - x}$ 78) ______

A) 0 B) 1
C) Does not exist D) -1

Provide an appropriate response.

79) It can be shown that the inequalities $-x \le x \cos\left(\frac{1}{x}\right) \le x$ hold for all values of $x \ge 0$.

Find $\lim_{x \to 0} x \cos\left(\frac{1}{x}\right)$

if it exists. 79) ___

A) 0.0007
B) does not exist
C) 1
D) 0

80) The inequality $1-\frac{x^2}{2} < \frac{\sin x}{x} < 1$ holds when x is measured in radians and $|x| < 1$. 80) ______

Find $\lim_{x \to 0} \frac{\sin x}{x}$ if it exists.

A) 0
B) 0.0007
C) does not exist
D) 1

81) If $x^3 \le f(x) \le x$ for x in [-1,1], find $\lim_{x \to 0} f(x)$ if it exists. 81) ______

A) -1
B) does not exist
C) 1
D) 0

1) A
2) D
3) A
4) B
5) C
6) B
7) C
8) D
9) B
10) C
11) B
12) B
13) B
14) B
15) D
16) B
17) B
18) C
19) D
20) D
21) A
22) A
23) A
24) D
25) B
26) A
27) C
28) C
29) A
30) C
31) C
32) B
33) B
34) D
35) A
36) D
37) B
38) A
39) D
40) Answers may vary. One possibility: $\lim_{x \to 0} 1 - \frac{x^2}{6} = \lim_{x \to 0} 1 = 1$. According to the squeeze theorem, the function $\frac{x \sin(x)}{2 - 2 \cos(x)}$, which is squeezed between $1 - \frac{x^2}{6}$ and 1, must also approach 1 as x approaches 0. Thus, $\lim_{x \to 0} \frac{x \sin(x)}{2 - 2 \cos(x)} = 1$.
41) C
42) A
43) C
44) C
45) C

46) D
47) D
48) B
49) B
50) A
51) A
52) B
53) D
54) B
55) D
56) C
57) C
58) A
59) B
60) D
61) A
62) A
63) C
64) D
65) C
66) A
67) C
68) C
69) C
70) A
71) B
72) D
73) D
74) C
75) C
76) A
77) B
78) C
79) D
80) D
81) D