Test Form A
Chapter P

Name _____ **Date** _____
Class _____ **Section** _____

1. Find all intercepts of the graph of $y = \frac{x+2}{x-3}$.

(a) $(-2, 0)$ (b) $(-2, 0), (3, 0)$ (c) $\left(0, \frac{2}{3}\right), (3, 0)$

(d) $(-2, 0), \left(0, -\frac{2}{3}\right)$ (e) None of these

2. Determine if the graph of $y = \frac{x}{x^2 - 4}$ is symmetrical with respect to the x-axis, the y-axis, or the origin.

(a) About the x-axis (b) About the y-axis (c) About the origin

(d) All of these (e) None of these

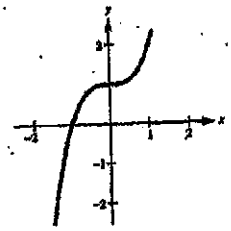
3. Find all points of intersection of the graphs of $x^2 - 2x - y = 6$ and $x - y = -4$.

(a) $(0, -6), (0, 4)$ (b) $(10, 14), (13, 17)$ (c) $(5, 9), (-2, 2)$

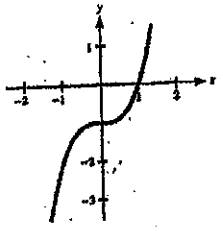
(d) $(-5, -1), (2, 6)$ (e) None of these

4. Which of the following is a sketch of the graph of the function $y = x^3 + 1$?

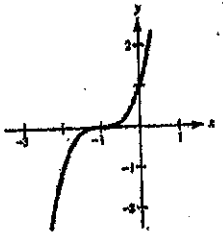
(a)



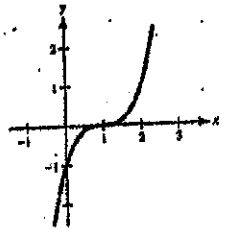
(b)



(c)



(d)



(e) None of these

5. Find an equation for the line passing through the point $(4, -1)$ and perpendicular to the line $2x - 3y = 3$.

(a) $y = \frac{2}{3}x - 1$ (b) $3x + 2y + 2 = 0$ (c) $2x + 3y = 10$

(d) $3x + 2y = 10$ (e) None of these

6. Find the domain of $f(x) = \dfrac{1}{\sqrt{3-2x}}$.

(a) $\left(-\infty, \frac{3}{2}\right)$ (b) $\left[\frac{3}{2}, \infty\right)$ (c) $\left(\frac{3}{2}, \infty\right)$

(d) $\left(-\infty, \frac{3}{2}\right) \cup \left(\frac{3}{2}, \infty\right)$ (e) None of these

7. Find $f(x + \Delta x)$ for $f(x) = x^3 + 1$.

(a) $x^3 + 1 + \Delta x$ (b) $x^3 + 3x^2(\Delta x) + 3x(\Delta x)^2 + (\Delta x)^3 + 1$

(c) $x^3 + (\Delta x)^3 + 1$ (d) $\Delta^3 x^5 + 1$

(e) None of these

8. If $f(x) = \dfrac{1}{\sqrt{x}}$ and $g(x) = 1 - x^2$, find $f(g(x))$.

(a) $\dfrac{1-x^2}{\sqrt{x}}$ (b) $\dfrac{1}{\sqrt{1-x^2}}$ (c) $1 - \dfrac{1}{x}$

(d) $\dfrac{1}{\sqrt{x}} + 1 - x^2$ (e) None of these

9. If the point $\left(-3, \frac{1}{2}\right)$ lies on the graph of the equation $2x + ky = -11$, find the value of k.

(a) $-\frac{5}{2}$ (b) -34 (c) $-\frac{17}{2}$

(d) -10 (e) None of these

10. Which of the following equations expresses y as a function of x?

(a) $3y + 2x - 9 = 17$ (b) $2x^2y + x = 4y$ (c) Both a and b

(d) Neither a nor b (e) $3y^2 - x^2 = 5$

11. Given $f(x) = x^2 - 3x + 4$, find $f(x + 2) - f(2)$.

(a) $x^2 - 3x + 4$ (b) $x^2 + x$ (c) $x^2 + x - 8$

(d) $x^2 - 3x - 4$ (e) None of these

12. Determine which function is neither even nor odd.

(a) $f(x) = \tan x$ (b) $f(x) = 3x^5 + 5x^3 + 1$ (c) $f(x) = \dfrac{3}{x^2}$

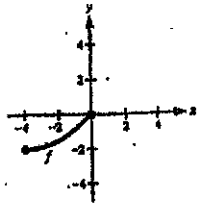
(d) $f(x) = \sqrt{x^2 + 1}$ (e) Both a and b

13. Find the point that lies on the line determined by the points $(1, -2)$ and $(-3, 1)$.

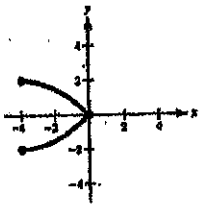
(a) $(0, 0)$ (b) $(5, 1)$ (c) $(4, -6)$

(d) $(5, -5)$ (e) $(-2, 0)$

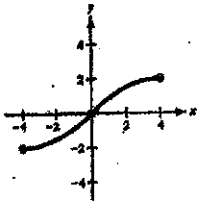
14. The domain of the function f shown in the figure is $-4 \le x \le 4$. Choose the complete graph of f if f is even.



(a)



(b)



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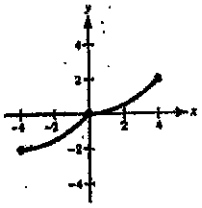
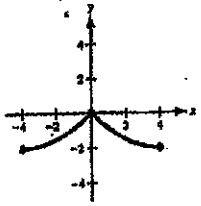


(d)



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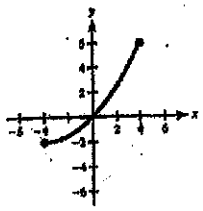


15. Describe the transformation needed to sketch the graph of $y = \dfrac{1}{x-2}$ using the graph of $f(x) = \dfrac{1}{x}$.

(a) Shift $f(x)$ two units to the right.

(b) Shift $f(x)$ two units to the left.

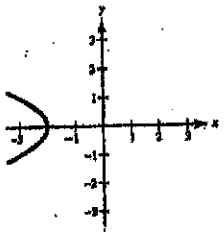
(c) Shift $f(x)$ two units upward.

(d) Shift $f(x)$ two units downward.

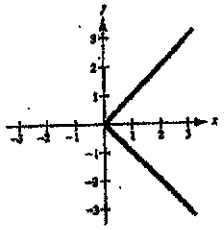
(e) Reflect $f(x)$ about the x-axis.

16. Use the vertical line test to determine which of the following graphs represent y as a function of x.

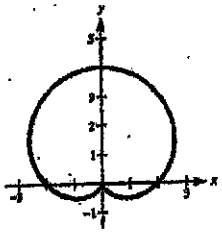
(a)



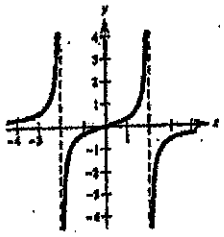
(b)



(c)



(d)



(e) None of these

17. Let $f(x) = \begin{cases} \frac{1}{x}, & x < 0 \\ 2x + 1, & x \geq 0 \end{cases}$. Find $f(3)$.

(a) $\frac{1}{3}$ (b) 1 (c) 7

(d) Undefined (e) $\frac{22}{3}$

18. The dollar value of a product in 1998 is \$1430. The value of the product is expected to increase \$83 per year for the next 5 years. Write a linear equation that gives the dollar value V of the product in terms of the year t. (Let $t = 8$ represent 1998.)

(a) $V = 1430 + 83(t - 8)$ (b) $V = 83 + 1430t$ (c) $V = 1430 + 83t$

(d) $V = 83 + 1430(t + 8)$ (e) $V = 1430 + 83(t + 8)$

19. During the first and second quarters of the year, a business had sales of \$150,000 and \$185,000, respectively. If the growth of sales follows a linear pattern, what will sales be during the fourth quarter?

(a) \$220,000 (b) \$235,000 (c) \$335,000

(d) \$255,000 (e) None of these

20. In order for a company to realize a profit in the manufacture and sale of a certain item, the revenue, R, for selling x items must be greater than the cost, C, of producing x items. If $R = 79.99x$ and $C = 61x + 1050$, for what values of x will this product return a profit?

(a) $x \geq 55$ (b) $x \geq 8$ (c) $x \geq 18$

(d) $x \geq 56$ (e) None of these

Test Form A
Chapter 1

Name _____ **Date** _____
Class _____ **Section** _____

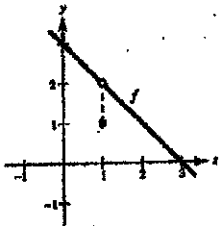
1. Find $\lim_{x \to 2} (3x^2 + 5)$.

(a) 41 (b) 17 (c) 11
(d) 0 (e) None of these

2. Given $\lim_{x \to 2} (2x - 1) = 3$. Find δ such that $|(2x - 1) - 3| < 0.01$ whenever $0 < |x - 2| < \delta$.

(a) 3 (b) 0.05 (c) 0.03
(d) 0.005 (e) None of these

3. Use the graph to find $\lim_{x \to 1} f(x)$ if $f(x) = \begin{cases} 3 - x, & x \neq 1 \\ 1, & x = 1 \end{cases}$



(a) 2 (b) 1
(c) $\frac{3}{2}$ (d) The limit does not exist.
(e) None of these

4. Find $\lim_{x \to -1} \dfrac{x^2 + 3x + 2}{x^2 + 1}$.

(a) 0 (b) ∞ (c) -1
(d) The limit does not exist. (e) None of these

5. Find $\lim_{x \to 3} \sqrt{x^2 - 4}$.

(a) 1 (b) 5 (c) -1
(d) $\sqrt{5}$ (e) None of these

6. If $\lim_{x \to c} f(x) = -\frac{1}{2}$ and $\lim_{x \to c} g(x) = \frac{2}{3}$, find $\lim_{x \to c} \dfrac{f(x)}{g(x)}$.

(a) $-\frac{1}{3}$ (b) $\frac{1}{3}$ (c) $-\frac{3}{4}$
(d) -3 (e) None of these

7. Find the limit: $\lim_{x \to 2} \frac{x-2}{x^2-4}$.

(a) 0 (b) $\frac{1}{4}$ (c) ∞

(d) 1 (e) None of these

8. Find the limit: $\lim_{x \to 0} \frac{\sqrt{x+4}-2}{x}$.

(a) 0 (b) $\frac{1}{4}$ (c) ∞

(d) 1 (e) None of these

9. Find the limit: $\lim_{x \to 3} \frac{x-3}{|x-3|}$.

(a) 0 (b) 1 (c) 3

(d) The limit does not exist. (e) None of these

10. Find the limit: $\lim_{x \to 2} \sec \frac{\pi x}{3}$.

(a) -2 (b) $\frac{2}{\sqrt{3}}$ (c) $-\frac{\sqrt{3}}{2}$

(d) $\frac{1}{2}$ (e) None of these

11. Find the limit: $\lim_{x \to 0} \frac{x}{\tan x}$.

(a) 0 (b) $\frac{\pi}{4}$ (c) 1

(d) The limit does not exist. (e) None of these

12. Find the limit: $\lim_{x \to 3^+} \sqrt{2x-5}$.

(a) 1 (b) 0 (c) 2

(d) The limit does not exist. (e) None of these

13. Find the limit: $\lim_{x \to 2^-} \frac{1}{x-2}$.

(a) ∞ (b) $-\infty$ (c) 0

(d) $-\frac{1}{4}$ (e) None of these

14. Find the limit: $\lim_{x \to 2} \frac{1}{(x-2)^2}$.

(a) ∞ (b) $-\infty$ (c) 0

(d) $\frac{1}{4}$ (e) None of these

15. Find the limit: $\lim_{x \to 0} \left(2 + \frac{5}{x^2}\right)$.

(a) 7 (b) 2 (c) ∞

(d) 0 (e) None of these

16. At which values of x is $f(x) = \frac{x^2 - 2x - 3}{x - 2}$ discontinuous?

(a) 2 (b) $-1, 2, 3$ (c) 1

(d) $-1, \frac{3}{2}, 2, 3$ (e) None of these

17. Let $f(x) = \frac{1}{x+1}$ and $g(x) = x^2 - 5$. Find all values of x for which $f(g(x))$ is discontinuous.

(a) -1 (b) $-1, \pm\sqrt{5}$ (c) $\pm\sqrt{5}$

(d) $-2, 2$ (e) None of these

18. Determine the value of c so that $f(x)$ is continuous on the entire real line when $f(x) = \begin{cases} x - 2, & x \le 5 \\ cx - 3, & x > 5 \end{cases}$.

(a) 0 (b) $\frac{6}{5}$ (c) 1

(d) $\frac{5}{6}$ (e) None of these

19. Find all vertical asymptote(s) of $f(x) = \frac{x-3}{x+2}$.

(a) $x = -2, x = 3$ (b) $x = -2$ (c) $x = 3$

(d) $x = 1$ (e) None of these

20. Find all vertical asymptote(s) of $g(x) = \frac{2x+3}{2x^2 + x - 3}$.

(a) $x = -\frac{3}{2}, x = 1$ (b) $x = -\frac{3}{2}$ (c) $x = 1$

(d) $y = 1$ (e) None of these

Test Form A
Chapter 2

Name _____ **Date** _____
Class _____ **Section** _____

1. If $f(x) = 2x^2 + 4$, which of the following will calculate the derivative of $f(x)$?

(a) $\dfrac{[2(x + \Delta x)^2 + 4] - (2x^2 + 4)}{\Delta x}$

(b) $\lim\limits_{\Delta x \to 0} \dfrac{(2x^2 + 4 + \Delta x) - (2x^2 + 4)}{\Delta x}$

(c) $\lim\limits_{\Delta x \to 0} \dfrac{[2(x + \Delta x)^2 + 4] - (2x^2 + 4)}{\Delta x}$

(d) $\dfrac{(2x^2 + 4 + \Delta x) - (2x^2 + 4)}{\Delta x}$

(e) None of these

2. Differentiate: $y = \dfrac{1 + \cos x}{1 - \cos x}$.

(a) -1 (b) $-2 \csc x$ (c) $2 \csc x$

(d) $\dfrac{-2 \sin x}{(1 - \cos x)^2}$ (e) None of these

3. Find dy/dx for $y = (x^3)\sqrt{x + 1}$.

(a) $\dfrac{3x^2}{2\sqrt{x + 1}}$ (b) $\dfrac{x^2(7x + 6)}{2\sqrt{x + 1}}$ (c) $3x^2\sqrt{x + 1}$

(d) $\dfrac{7x^3 + x^2}{2\sqrt{x + 1}}$ (e) None of these

4. Find $f'(x)$ for $f(x) = (2x^2 + 5)^7$.

(a) $7(4x)^6$ (b) $(4x)^7$ (c) $28x(2x^2 + 5)^6$

(d) $7(2x^2 + 5)^6$ (e) None of these

5. Find $\dfrac{d^2y}{dx^2}$ for $y = \cos^2 4x$.

(a) $-8 \cos 4x$ (b) $32 \sin 4x$ (c) $4 \cos 8x$

(d) $-32 \cos 8x$ (e) None of these

6. The position equation for the movement of a particle is given by $s = (t^2 - 1)^3$ when s is measured in feet and t is measured in seconds. Find the acceleration at two seconds.

(a) 342 units/sec^2 (b) 18 units/sec^2 (c) 288 units/sec^2
(d) 90 units/sec^2 (e) None of these

7. Find $\frac{dy}{dx}$ if $y^2 - 3xy + x^2 = 7$.

(a) $\frac{2x + y}{3x - 2y}$ (b) $\frac{3y - 2x}{2y - 3x}$ (c) $\frac{2x}{3 - 2y}$
(d) $\frac{2x}{y}$ (e) None of these

8. Find y' if $y = \sin(x + y)$.

(a) 0 (b) $\frac{\cos(x + y)}{1 - \cos(x + y)}$ (c) $\cos(x + y)$
(d) 1 (e) None of these

9. Differentiate: $y = \sec^2 x + \tan^2 x$.

(a) 0 (b) $\tan x + \sec^4 x$ (c) $\sec^2 x(\sec^2 x + \tan^2 x)$
(d) $4 \sec^2 x \tan x$ (e) None of these

10. Find the derivative: $s(t) = \csc \frac{t}{2}$.

(a) $-\csc \frac{t}{2} \cot \frac{t}{2}$ (b) $-\frac{1}{2} \cot^2 \frac{t}{2}$ (c) $\frac{1}{2} \csc \frac{t}{2} \cot \frac{t}{2}$
(d) $\frac{1}{2} \cot^2 \frac{t}{2}$ (e) None of these

11. Find an equation for the tangent line to the graph of $f(x) = 2x^2 - 2x + 3$ at the point where $x = 1$.

(a) $y = 2x - 2$ (b) $y = 4x^2 - 6x + 5$ (c) $y = 2x + 1$
(d) $y = 4x^2 - 6x + 2$ (e) None of these

12. Find all points on the graph of $f(x) = -x^3 + 3x^2 - 2$ at which there is a horizontal tangent line.

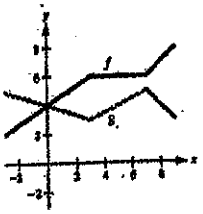
(a) $(0, -2), (2, 2)$ (b) $(0, -2)$ (c) $(1, 0), (0, -2)$
(d) $(2, 2)$ (e) None of these

13. Find the instantaneous rate of change of w with respect to z if $w = \frac{7}{3z^2}$.

(a) $\frac{7}{6z}$ (b) $\frac{14}{3}z$ (c) $-\frac{14}{3z}$

(d) $-\frac{14}{3z^3}$ (e) None of these

14. Let $p(x) = f(x)g(x)$. Use the figure to find $p'(5)$.



(a) 7 (b) 3

(c) 0 (d) 24

(e) None of these

15. A point moves along the curve $y = 2x^2 + 1$ in such a way that the y value is decreasing at the rate of 2 units per second. At what rate is x changing when $x = \frac{3}{2}$?

(a) increasing $\frac{1}{3}$ unit/sec (b) decreasing $\frac{1}{3}$ unit/sec (c) decreasing $\frac{7}{2}$ unit/sec

(d) increasing $\frac{7}{2}$ unit/sec (e) None of these

16. Assume $f'(c) = -4$. Find $f'(-c)$ if f is an odd function.

(a) 4 (b) 0 (c) -3 (d) -4 (e) None of these

Test Form A **Name** _____ **Date** _____

Chapter 3 **Class** _____ **Section** _____

1. Find all open intervals on which the function $f(x) = \frac{x^2}{x^2 + 4}$ is decreasing.

(a) $(0, \infty)$ (b) $(-2, 2)$ (c) $(-\infty, 0)$

(d) $(-\infty, \infty)$ (e) None of these

2. Find all critical numbers for the function $f(x) = \frac{x - 1}{x + 3}$.

(a) 1 (b) $1, -3$ (c) -3

(d) $1, -1$ (e) None of these

3. Find the values of x that give relative extrema for the function $f(x) = 3x^5 - 5x^3$.

(a) Relative maximum: $x = 0$; Relative minimum: $x = \sqrt{5/3}$

(b) Relative maximum: $x = -1$; Relative minimum: $x = 1$

(c) Relative maxima: $x = \pm 1$; Relative minimum: $x = 0$

(d) Relative maximum: $x = 0$; Relative minima: $x = \pm 1$

(e) None of these

4. Find all intervals on which the graph of the function is concave upward: $f(x) = \frac{x^2 + 1}{x^2}$.

(a) $(-\infty, \infty)$ (b) $(-\infty, -1)$ and $(1, \infty)$ (c) $(-\infty, 0)$ and $(0, \infty)$

(d) $(1, \infty)$ (e) None of these

5. Let $f''(x) = 4x^3 - 2x$ and let $f(x)$ have critical numbers -1, 0, and 1. Use the Second Derivative Test to determine if any of the critical numbers gives a relative maximum.

(a) -1 (b) 0 (c) 1

(d) -1 and 1 (e) None of these

6. Find the limit: $\lim_{x \to \infty} \frac{2x^4 + 6x^2 + 5}{3 + x^3}$.

(a) $\frac{2}{3}$ (b) ∞ (c) 1 (d) 2 (e) None of these

7. Which of the following functions has a horizontal asymptote at $y = 2$?

(a) $\frac{x - 2}{3x - 5}$ (b) $\frac{2x}{\sqrt{x - 2}}$ (c) $\frac{2x^2 - 6x + 1}{1 + x^2}$

(d) $\frac{2x - 1}{x^2 + 1}$ (e) None of these

8. Find the limit: $\lim_{x \to -\infty} \left(x + \sqrt{x^2 + 3x}\right)$.

(a) $-\infty$ (b) $-\frac{3}{2}$ (c) 0

(d) -3 (e) None of these

9. Find all points of inflection: $f(x) = \frac{1}{12}x^4 - 2x^2 + 15$.

(a) $(2, 0)$ (b) $(2, 0), (-2, 0)$ (c) $(0, 15)$

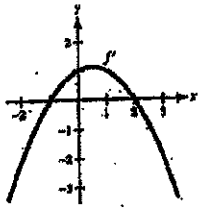
(d) $\left(2, \frac{25}{3}\right), \left(-2, \frac{25}{3}\right)$ (e) None of these

10. The management of a large store wishes to add a fenced-in rectangular storage yard of 20,000 square feet, using the building as one side of the yard. Find the minimum amount of fencing that must be used to enclose the remaining 3 sides of the yard.

(a) 400 ft (b) 200 ft (c) 20,000 ft

(d) 500 ft (e) None of these

11. Use the graph of f' given in the figure to choose the true statement about f.



(a) f is decreasing on the interval $(0, \infty)$.

(b) f has a relative maximum at $x = 0$.

(c) f is increasing on the interval $(-1, 2)$.

(d) f has a relative minimum at $x = 2$.

(e) None of these

12. State why Rolle's Theorem does not apply to the function $f(x) = \frac{2}{(x+1)^2}$ on the interval $[-2, 0]$.

(a) f is not continuous on $[-2, 0]$. (b) $f(-2) \neq f(0)$

(c) f is not differentiable at $x = -1$. (d) Both a and c.

(e) None of these

13. Find all extrema in the interval $[0, 2\pi]$ if $y = x + \sin x$.

(a) $\left(-1, -1 + \frac{3\pi}{2}\right), (0, 0)$ (b) $(2\pi, 2\pi), (0, 0)$

(c) $(2\pi, 2\pi) (\pi, \pi)$ (d) $(\pi, \pi) (0, 0)$

(e) None of these

14. The side of a cube is measured to be 3.0 inches. If the measurement is correct to within 0.01 inch, use differentials to estimate the propagated error in the volume of the cube.

(a) ± 0.000001 in.^{3} (b) ± 0.06 in.^{3} (c) ± 0.027 in.^{3}

(d) ± 0.27 in.^{3} (e) None of these

Test Form A **Name** _____ **Date** _____

Chapter 4 **Class** _____ **Section** _____

1. Evaluate the integral: $\int \sqrt[3]{t}\, dt$.

   (a) $\frac{3}{4}t^{4/3} + C$ (b) $\sqrt[3]{\frac{1}{2}t^2} + C$ (c) $\frac{3}{2}t^{2/3} + C$

   (d) $\frac{1}{3t^{2/3}} + C$ (e) None of these

2. Evaluate the integral: $\int 5 \sec x \tan x\, dx$.

   (a) $5 \sec^3 x \tan x + C$ (b) $5 \sec x + C$ (c) $\frac{1}{5} \sec^3 x \tan x + C$

   (d) $5[\sec^3 x + \sec x \tan^2 x] + C$ (e) None of these

3. Evaluate the integral: $\int \frac{x^3 + x}{x}\, dx$.

   (a) $x^3 + 3x + C$ (b) $2x + C$ (c) $\frac{x^3}{3} + x + C$

   (d) $\frac{2x^3 + x - 1}{x^2}$ (e) None of these

4. Evaluate the integral: $\int \frac{\sin^3 \theta}{1 - \cos^4 \theta}\, d\theta$.

   (a) $-\cos \theta + C$ (b) $\cos \theta + C$ (c) $\frac{\cos \theta[3 - 3\cos^2 \theta - 2\sin^2 \theta]}{1 - \cos^2 \theta}$

   (d) $\frac{1}{2}\sin^2 \theta + C$ (e) None of these

5. Find $y = f(x)$ if $f''(x) = x^2$, $f'(0) = 7$, and $f(0) = 2$.

   (a) $x^2 + 9$ (b) $\frac{1}{12}x^4 + 7x + 2$ (c) $x^2 + 7x + 2$

   (d) $x^4 + 84x + 24$ (e) None of these

6. Use $a(t) = -32$ feet per second squared as the acceleration due to gravity. A ball is thrown vertically upward from the ground with an initial velocity of 96 feet per second. How high will the ball go?

   (a) 32 feet (b) 64 feet (c) 24 feet

   (d) 144 feet (e) None of these

7. Use the properties of sigma notation and the summation formulas to evaluate the given sum: $\sum_{i=1}^{10}(i^2 - 2i + 3)$.

(a) 83 (b) 245 (c) 305

(d) 81 (e) None of these

8. Let $s(n) = \sum_{i=1}^{n}\left(1 + \frac{i}{n}\right)^2\left(\frac{2}{n}\right)$. Find the limit of $s(n)$ as $n \to \infty$.

(a) $\frac{17}{12}$ (b) $\frac{10}{3}$ (c) $\frac{14}{3}$

(d) $\frac{20}{3}$ (e) None of these

9. Let $f(x) = \begin{cases} 3, & x \le 3 \\ 6 - x, & x > 3 \end{cases}$. Use geometric formulas to find $\int_0^5 f(x)\,dx$.

(a) 15 (b) 13 (c) 11

(d) 30 (e) None of these

10. Use the Fundamental Theorem of Calculus to evaluate the integral: $\int_1^4 \sqrt{x}\,dx$.

(a) 1 (b) $-\frac{14}{3}$ (c) 7

(d) $\frac{14}{3}$ (e) None of these

11. Find the average value of $f(x) = 2x^2 + 3$ on the interval $[0, 2]$.

(a) $\frac{22}{3}$ (b) $\frac{17}{3}$ (c) 4

(d) 27 (e) None of these

12. Evaluate the integral: $\int x^2(x^3 + 5)^6\,dx$.

(a) $\frac{1}{21}(x^3 + 5)^7 + C$ (b) $\frac{1}{7}(x^3 + 5)^7 + C$ (c) $\frac{x^3(x^3 + 5)^7}{21} + C$

(d) $\frac{x^3}{3}\left(\frac{x^4}{4} + 5x\right)^6 + C$ (e) None of these

13. Evaluate the integral: $\int_0^2 |x - 1|\,dx$.

(a) 0 (b) 1 (c) $\frac{1}{2}$

(d) 2 (e) None of these

14. Evaluate the integral: $\int \cos 3x\, dx$.

(a) $\sin 3x + C$ (b) $-\sin 3x + C$ (c) $-\sin \frac{3}{2}x^2 + C$

(d) $\frac{1}{3}\sin 3x + C$ (e) None of these

15. Evaluate the integral: $\int x\sqrt{1-x}\, dx$.

(a) $-\frac{x^2}{3}(1-x)^{3/2} + C$ (b) $\frac{2-3x}{2\sqrt{1-x}} + C$ (c) $\frac{x^2}{3}(1-x)^{3/2} + C$

(d) $-\frac{2}{15}(2+3x)(1-x)^{3/2} + C$ (e) None of these

16. Use Simpson's Rule with $n = 4$ to approximate $\int_2^3 \frac{1}{(x-1)^2}\, dx$.

(a) 0.5004 (b) 0.5090 (c) 2.5000

(d) 1.7396 (e) None of these

Answers to CHAPTER P Tests

Test Form A

1. d	2. c	3. c	4. a
5. d	6. a	7. b	8. b
9. d	10. c	11. b	12. b
13. d	14. d	15. a	16. d
17. c	18. a	19. d	20. d

Answers to CHAPTER 1 Tests

Test Form A

1. b	2. d	3. a	4. a
5. d	6. c	7. b	8. b
9. d	10. a	11. c	12. a
13. b	14. a	15. c	16. a
17. d	18. b	19. b	20. c

Answers to CHAPTER 2 Tests

Test Form A

1. c	2. d	3. b	4. c
5. d	6. a	7. b	8. b
9. d	10. e	11. c	12. a
13. d	14. b	15. b	16. d

Answers to CHAPTER 3 Tests

Test Form A

1. c	2. e	3. b	4. c
5. a	6. b	7. c	8. b
9. d	10. a	11. c	12. d
13. b	14. d		

Answers to CHAPTER 4 Tests

Test Form A

1. a	2. b	3. c	4. a
5. b	6. d	7. c	8. c
9. b	10. d	11. b	12. a
13. b	14. d	15. d	16. a