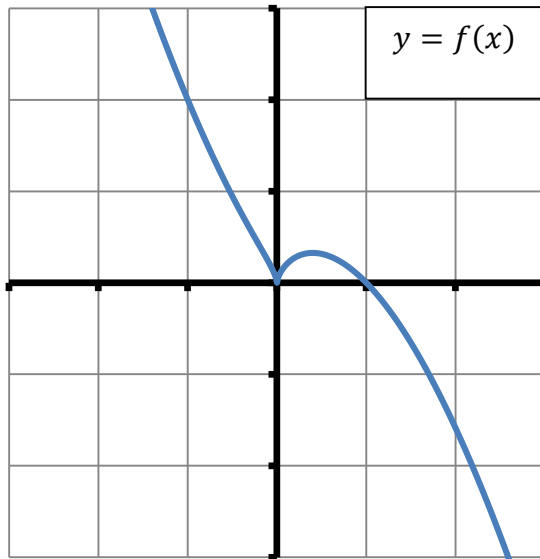


For each problem given below,
the [answer](#) is listed at the end of
this document, and the
corresponding lesson number is
listed next to the problem. You
can review the [content and](#)
[videos for each lesson](#) by going
to [LON-CAPA](#).

1. Which of the following statements is/are true regarding the graph of the function f given below? (*Lesson 28*)



- A. $f(x) > 0$ when $x < 1$
 B. f is decreasing throughout its domain
 C. f is a one-to-one function
 D. More than one of the above
 E. None of the above

2. The base of a triangle is three inches more than its height. If each is increased by 3 inches the area of the triangle ($\frac{1}{2}bh$) is 14 square inches. Find the original base (b) and the original height (h) in inches. (*Lesson 15*)

- A. $b = 4, h = 1$
 B. $b = 9, h = 6$
 C. $b = 8, h = 5$
 D. $b = \frac{7}{2}, h = \frac{1}{2}$
 E. None of the above

3. Simplify $\frac{(25x^4y^{16}z^9)^{-\frac{1}{2}}}{x^{-5}y\sqrt{z}}$. (*Lessons 1, 2, 3*)

- A. $\frac{x^3}{5y^9z^5}$
 B. $\frac{5x^7y^3z^2}{2}$
 C. $\frac{2}{5x^7y^7z^4}$
 D. $\frac{x^7}{5y^7z^4}$
 E. None of the above

4. Subtract and simplify. (*Lesson 8*)

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

- A. $\frac{2x^2-1}{(3x+1)(x-2)}$
B. $\frac{-3x^2}{(3x+1)(x-2)}$
C. $\frac{-7x}{(3x+1)(x-2)}$
D. $\frac{2x}{(3x+1)(x-2)}$
E. None of the above

5. Simplify **COMPLETELY**. (*Lesson 9*)

$$\frac{1 - \frac{a}{b}}{\frac{a^2}{b^2} - 1}$$

- A. $\frac{ab-b^2}{a^2-b^2}$
B. $\frac{b}{b+a}$
C. $\frac{b}{a}$
D. $-\frac{b}{a+b}$
E. None of the above

6. If the point $P(-6, 12)$ is on the graph of the function $y = f(x)$, which of the following is the corresponding point on the graph of the function $y = -2f(3x) + 4$. (*Lesson 23*)

- A. $(-18, -20)$
B. $(-2, -10)$
C. $(-18, -2)$
D. $(-2, -20)$
E. $(-18, -10)$

7. Express the quadratic function $f(x) = -2x^2 + 12x - 14$ in standard form. (*Lesson 25*)

A. $f(x) = -2(x + 3)^2 + 4$

B. $f(x) = -2(x + 3)^2 + 32$

C. $f(x) = -2(x - 3)^2 + 32$

D. $f(x) = -2(x - 3)^2 + 4$

E. $f(x) = -2(x - 6)^2 - 14$

8. Which of the following statements is/are true about the function $f(x) = 2^{-x}$? (*Lesson 30*)

I. The domain of $f(x)$ is $(-\infty, \infty)$

II. The range of $f(x)$ is $(-\infty, \infty)$

III. $f(x) \neq 0$

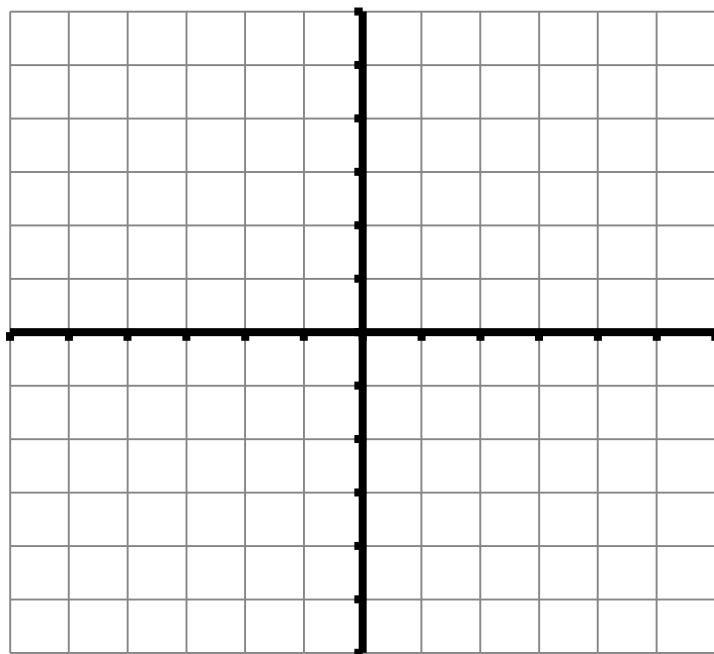
A. I only

B. II only

C. I and III only

D. II and III only

E. I, II, and III are all true



9. A woman rows a boat 1.75 miles upstream against a constant current in 35 minutes. She then rows the same distance downstream (with the same current) in 15 minutes. What is the rate of the current? (*Lesson 37*)

A. 2 mph
B. 5 mph
C. $\frac{1}{30}$ mph
D. 1 mph
E. $\frac{17}{60}$ mph

10. A job takes 45 minutes for two people working together. If one person works alone he can do the job in 2 hours. How long will it take the other person working alone to complete the job? (*Lesson 12*)

A. $\frac{90}{43}$ hours
B. 1 hour and 15 minutes
C. 43 minutes
D. 1 hour
E. 1 hour and 12 minutes

11. Rationalizing the denominators and simplify. (*Lesson 3*)

$$\sqrt{\frac{1}{18x^3y^4}}$$

A. $\frac{1}{6x^2y^2}$
B. $\frac{\sqrt{2x}}{6x^2y^2}$
C. $\frac{1}{9x^{\frac{3}{2}}y^2}$
D. $\frac{\sqrt{2x}}{12x^3y^2}$
E. $\frac{1}{3xy^2}$

12. Let x and y be two consecutive positive integers such that x is less than y and the difference of their squares is 145. Set-up a system of equations, and use the system to find x .

(Lesson 37)

- A. 73
- B. 72
- C. 12
- D. 8
- E. None of the above

13. Given the formula $f = \frac{1}{\frac{1}{a} + \frac{1}{b}}$, solve for b . (Lesson 11)

- A. $b = \frac{af}{a+f}$
- B. $b = \frac{1}{2}$
- C. $b = \frac{f}{a}$
- D. $b = \frac{a}{af-1}$
- E. $b = \frac{af}{a-f}$

14. How many ml of a 50% acid solution should be added to 40 ml of a 20% acid solution to obtain a solution that is 25% acid? (Lesson 37)

- A. 10 ml
- B. 8 ml
- C. 6 ml
- D. 4 ml
- E. None of the above

15. Solve for x . Choose the answer that best describes the solution(s). (*Lesson 16*)

$$x + \sqrt{5x + 19} = -1$$

- A. There are two solutions.
One is positive and one is negative.
- B. There are two solutions.
Both are positive.
- C. There are two solutions.
Both are negative.
- D. There is one solution.
It is positive.
- E. There is one solution.
It is negative.

16. Find the domain of f . (*Lesson 19*)

$$f(x) = \sqrt{3x - 2} + 1$$

- A. $(-\infty, \infty)$
- B. $\left[\frac{3}{2}, \infty\right)$
- C. $\left[\frac{2}{3}, \infty\right)$
- D. $\left(-\infty, \frac{2}{3}\right]$
- E. $[0, \infty)$

17. Which of the following equations is/are true? (*Lesson 32*)

- I. $\ln(0) = 1$
- II. $\log(0.1) = -1$
- III. $\log_4(8) = 2$

- A. I only
- B. II only
- C. III only
- D. I, II, and III are all true
- E. I, II, and III are all false

18. Given the function $f(x) = 5 - 2x^2, x \leq 0$ and its graph, determine which of the following statements is/are true. (each tick mark represents one unit on the graph)
(Lessons 28 & 29)

I. The range of f is $(-\infty, 0]$

II. $f^{-1}(x) = -\sqrt{\frac{5-x}{2}}$

III. The graph of f^{-1} will pass through the point $(3, -1)$

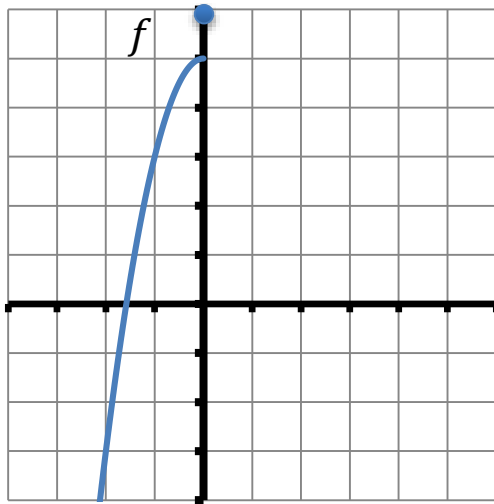
A. I and II only

B. I and III only

C. II and III only

D. I, II, and III are all true

E. I, II, and III are all false



19. Solve for x . Choose the answer that best describes the solution(s). *(Lesson 16)*

$$x^4 - x^2 - 6 = 0$$

- A. There are four real solutions.
 B. There are three real solutions.
 C. There are two real solutions.
 D. There is one real solutions.
 E. There are no real solutions.

20. Simplify; do not include negative exponents in your final answer. (*Lesson 9*)

$$\frac{xy^{-1}}{(x+y)^{-1}}$$

- A. $\frac{x(x+y)}{y}$
B. $\frac{x^2}{x+y}$
C. $\frac{x+y}{xy}$
D. $\frac{xy}{x+y}$
E. None of the above

21. Find all values of c , so that the solutions of the following equation are real numbers:
(*Lessons 13 & 14*)

$$2x^2 - 4x + c = 0$$

- A. $c = 2$
B. $c > 2$
C. $c \geq 2$
D. $c \leq 2$
E. None of the above

22. Which of the following equations is/are true? (*Lesson 4*)

- I. $(x+y)^2 = x^2 + y^2$
II. $(\sqrt{x} + \sqrt{y})(\sqrt{x} - \sqrt{y}) = x - y$
III. $(x-y)^2 - (x+y)^2 = -4xy$

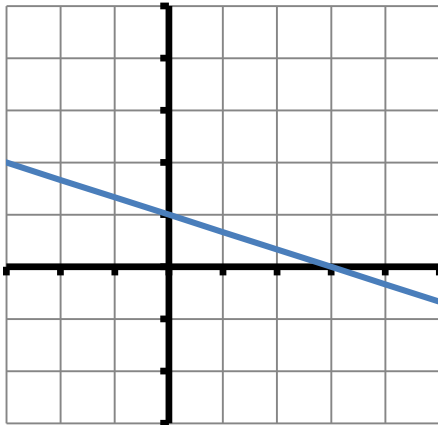
- A. I only
B. II only
C. III only
D. I and II only
E. II and III only

23. Which of the following statements is **TRUE** regarding the solutions of the following system?
(Lesson 36)

$$\begin{aligned} 2x^2 + y^2 &= 1 \\ x - y &= 1 \end{aligned}$$

- A. There is a solution in QI
- B. There is a solution in QII
- C. There is a solution in QIII
- D. There is a solution in QIV
- E. There is a solution that lies on the x -axis

24. The slope of a line **perpendicular** to the line drawn is? (Lessons 17 & 18)
(each tick mark represents one unit on the graph)



- A. $\frac{1}{3}$
- B. $-\frac{1}{3}$
- C. -3
- D. 3
- E. None of the above

25. M varies jointly with x cubed and y , and inversely with the square root of z . Find the constant of proportionality k if $M = 64$ when $x = 8$, $y = 5$, and $z = 4$. (Lesson 38)

- A. $k = \frac{64}{5}$
- B. $k = \frac{1}{20}$
- C. $k = \frac{5}{4}$
- D. $k = \frac{2}{5}$
- E. None of the above

26. Given the functions $f(x) = \frac{2-x}{x+4}$ and $g(x) = 1 - \frac{\sqrt{x+1}}{x^2+1}$, determine which of the following is/are true. (Lesson 19)

- I. The domain of f is $(-\infty, -4) \cup (-4, \infty)$
 II. The domain of g is $(-1, 1) \cup (1, \infty)$
 III. $\frac{g(-1)}{f(-1)} = 5$

- A. I. only
 B. I. and II. only
 C. I. and III. only
 D. II. and III. only
 E. I, II, and III are all true

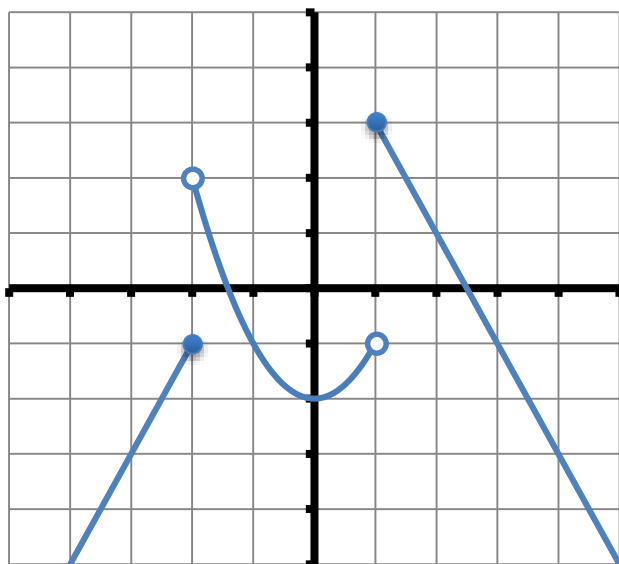
27. If $f(x) = \frac{x}{x^2+1}$, find $f\left(\frac{1}{3}\right)$ and $\frac{1}{f(3)}$. (Lesson 19)

- A. $f\left(\frac{1}{3}\right) = \frac{3}{10}, \frac{1}{f(3)} = \frac{3}{10}$
 B. $f\left(\frac{1}{3}\right) = \frac{10}{27}, \frac{1}{f(3)} = \frac{3}{10}$
 C. $f\left(\frac{1}{3}\right) = \frac{10}{27}, \frac{1}{f(3)} = \frac{10}{13}$
 D. $f\left(\frac{1}{3}\right) = \frac{3}{10}, \frac{1}{f(3)} = \frac{10}{3}$
 E. None of the above

28. Solve the Pythagorean theorem $a^2 + b^2 = c^2$ for b . (Lesson 11)

- A. $b = -\sqrt{c^2 - a^2}$
 B. $b = c - a$
 C. $b = \sqrt{c^2 - a^2}$
 D. $b = a - c$
 E. $b = \sqrt{c^2 + a^2}$

29. Which of the following statements about the graph of f is/are true? (*Lesson 26*)
(each tick mark represents one unit on the graph)

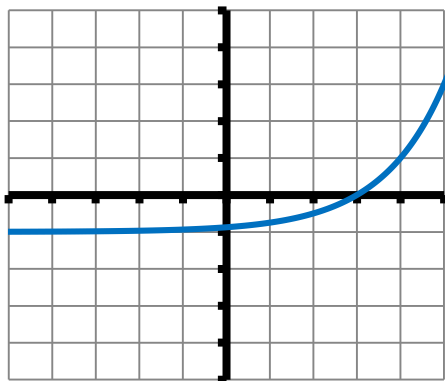


- I. Increasing intervals: $(-\infty, -2] \cup (0, 1)$
 II. Range: $(-\infty, 3]$
 III. y-intercept: $(0, 2)$

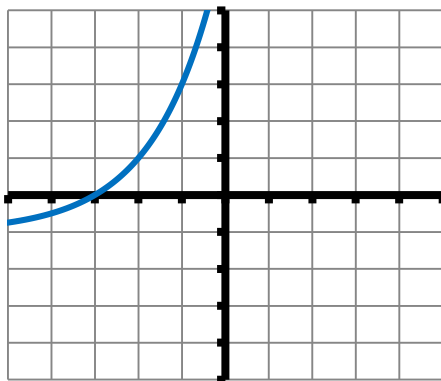
- A. I only
 B. I and II only
 C. I and III only
 D. I, II, and III are all true
 E. I, II, and III are all false

30. If $f(x) = 2^x$, which of the following graphs represents $f(x - 3) + 1$? (*Lessons 22, 23, & 30*)
(each tick mark represents one unit on the graph)

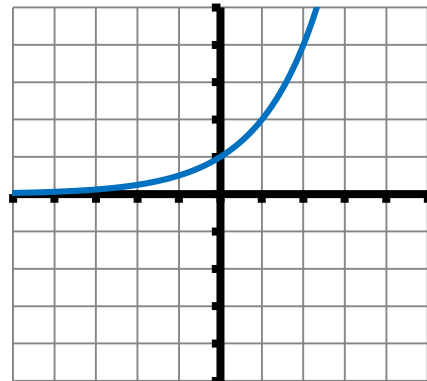
A.



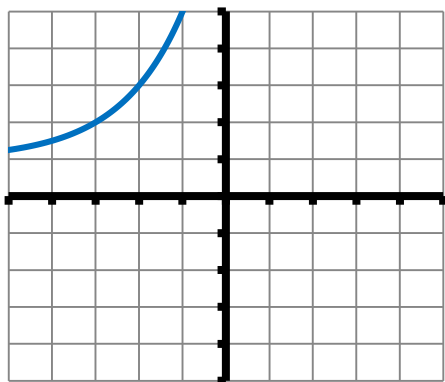
B.



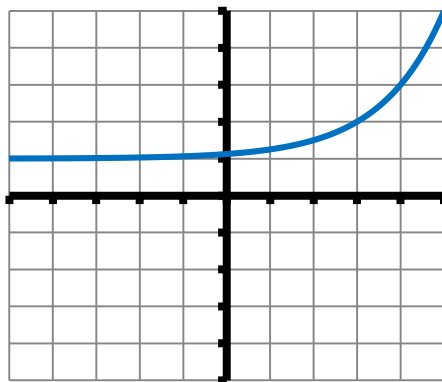
C.



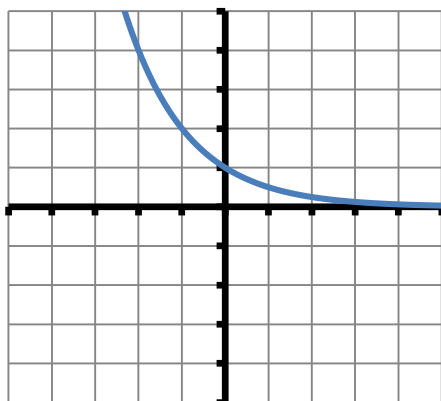
D.



E.



31. Given below is the graph of which of the following functions? (*Lesson 30*)
(each tick mark represents one unit on the graph)



- A. $f(x) = \left(\frac{1}{2}\right)^x$
 B. $g(x) = 2^x$
 C. $h(x) = -2^x$
 D. $j(x) = -\left(\frac{1}{2}\right)^x$
 E. $k(x) = 1 - 2^x$

32. Find the domain of $f(x) = \frac{x}{\sqrt{x}-1}$ and express the solutions in interval notation. (*Lesson 29*)

- A. $(-\infty, 1) \cup (1, \infty)$
 B. $(0, \infty)$
 C. $(1, \infty)$
 D. $[0, 1) \cup (1, \infty)$
 E. None of the above

33. Solve the system of equations $\begin{cases} x^2 + y^2 = 25 \\ y = x^2 - 5 \end{cases}$ and determine which of the following statements is/are true regarding the solution(s). (*Lesson 36*)

- | | |
|------|--|
| I. | One solution is an x -intercept. |
| II. | There are three solutions. |
| III. | All solutions lie above the x -axis. |

- A. I only
 B. II only
 C. I and III only
 D. II and III only
 E. I, II, and III are all true

34. A truck enters a freeway traveling 40 mph. One hour later a car enters the same freeway traveling 55 mph. After how many miles will the car overtake the truck? (*Lesson 37*)

- A. $146\frac{2}{3}$ miles
- B. $201\frac{2}{3}$ miles
- C. 120 miles
- D. $106\frac{2}{3}$ miles
- E. None of the above

35. Solve for x : $3^{x-5} = 4$. (*Lesson 35*)

- A. $x = \log(4) + 5 \log(3)$
- B. $x = 5 + \log\left(\frac{4}{3}\right)$
- C. $x = 5 + \log_3(4)$
- D. $x = 5 + \log(4)$
- E. $x = \frac{5+\log(4)}{\log(3)}$

36. Solve for x : (*Lesson 34*)

$$\log_3 \sqrt{2x+3} = 2$$

- A. $x = \frac{5}{2}$
- B. $x = \frac{3}{2}$
- C. $x = 39$
- D. $x = 17$
- E. $x = 3$

37. Let $y = f(x)$ be a function with domain $D = [-7, 8]$ and range $R = [-12, 9]$. Determine which of the following statements is/are true? (*Lessons 22, 23*)

- I. The range of $y = \frac{1}{2}f(-x) + 3$ is $[-8, 7]$
II. The domain of $y = -f(2x) - 2$ is $[-14, 16]$
III. The range of $y = \frac{2}{3}f(x - 4) - 1$ is $[-9, 5]$
IV. The domain of $y = -f\left(-\frac{3}{2}x\right)$ is $\left[-\frac{21}{2}, 12\right]$

- A. I and III only
B. II and IV only
C. I only
D. I, II, and III only
E. III only

38. Which of the following statements is/are true regarding the function $f(x) = -e^x + 3$? (*Lesson 31*)

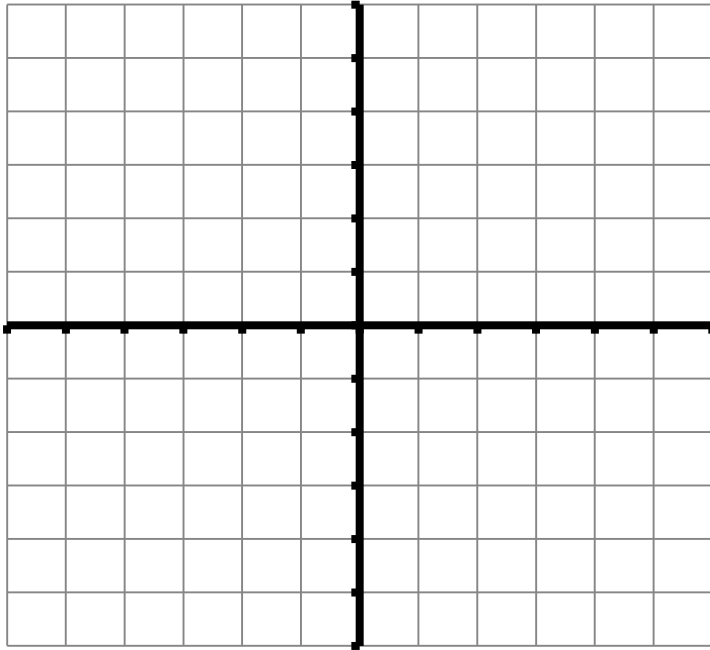
- I. f has a domain of $(-\infty, \infty)$
II. f has a range of $(-\infty, \infty)$
III. f has a y -intercept of $(0, 3)$

- A. I only
B. II only
C. III only
D. I and III only
E. I, II, and III are all false

39. Which of the following systems has no solution? (*Lesson 36*)

- A. $\begin{cases} 2x + 3y = 8 \\ 3x - 2y = 4 \end{cases}$
B. $\begin{cases} 3x + 4y = 5 \\ 6x + 4y = 10 \end{cases}$
C. $\begin{cases} 2x - 3y = 4 \\ -4x + 6y = 3 \end{cases}$
D. $\begin{cases} x - 4y = 6 \\ 2x - 4y = 6 \end{cases}$
E. $\begin{cases} 3x - 2y = 4 \\ 6x + 4y = 8 \end{cases}$

40. Which of the following statements is/are true of the function $f(x) = \log_2 x$? (*Lessons 32*)



- I. $f(x) = 0$ when $x = 1$
- II. $f(x)$ is always positive
- III. $f(x)$ is always increasing

- A. I only
- B. I and II only
- C. I and III only
- D. II and III only
- E. I, II, and III are all true

41. The value of a rare book is increasing linearly. It was worth \$54 in 1981 and \$62 in 1983. Which of the following linear functions represents the value (v) of the book t years after 1980? (*Lesson 21*)

- A. $v(t) = 50 + 4t$
- B. $v(t) = 48 + 3t$
- C. $v(t) = 50 + 3t$
- D. $v(t) = 51 + 4t$
- E. None of the above

42. If $f(x) = -x^2 + x + 2$, find $\frac{f(x+h)-f(x)}{h}$. (*Lessons 19 & 20*)

- A. $-2x - h$
- B. $-h^2$
- C. $-2x - h^2 + h$
- D. $-h + 1$
- E. $-2x - h + 1$

43. Perform the indicated operations and simplify: (*Lesson 8*)

$$\frac{x}{x+1} - \frac{1}{x-1}$$

A. $\frac{x-1}{2}$

B. 1

C. $\frac{x-1}{x+1}$

D. $\frac{x^2-2x-1}{x^2-1}$

E. $\frac{1}{x+1}$

44. If $\log_x 2 = 5$, solve for x . Write your answer correct to four decimal places. (*Lesson 35*)

A. 2.2361

B. 1.4142

C. 0.6990

D. 1.1487

E. 0.3010

45. Given the formula $N = n \cdot 2^{\frac{t}{a}}$, solve for a . (*Lesson 35*)

A. $a = t \cdot \log_2 \left(\frac{N}{n} \right)$

B. $a = \frac{n \cdot 2^t}{N}$

C. $a = 2t$

D. $a = \frac{\log\left(\frac{N}{n}\right)}{t \cdot \log 2}$

E. $a = \frac{t}{\log_2\left(\frac{N}{n}\right)}$

46. Solve for x and choose the answer that best describes the solution(s). (*Lesson 16*)

$$x = 4 + \sqrt{4x - 19}$$

- A. There is one solution.
It is negative.
- B. There are two solutions.
Both are positive.
- C. There is one solution.
It is positive.
- D. There are two solutions.
One is positive and one is negative.
- E. There is no solution for x .

47. Suppose y is directly proportional to the cube root of x and inversely proportional to the square of z . Find the constant of proportionality if $y = 6$ when $x = 8$ and $z = 4$. (*Lesson 38*)

- A. 24
- B. $\frac{3}{16}$
- C. 6
- D. $\frac{3}{128}$
- E. 48

48. $x - 1$ is a factor which of the following polynomials? (*Lessons 5 & 6*)

- A. $10x^2 + 13x - 3$
- B. $x^2 - 5x - 6$
- C. $6x^2 - 5x - 1$
- D. All of the above
- E. None of the above

49. Give the equation of the line in slope-intercept form which is parallel to the line $2x - 3y = 7$ and contains the point $(4, -1)$. (*Lessons 17 & 18*)

- A. $y = \frac{3}{2}x - 7$
B. $y = -\frac{2}{3}x + \frac{5}{2}$
C. $y = \frac{2}{3}x - \frac{11}{3}$
D. $y = \frac{2}{3}x + \frac{14}{3}$
E. None of the above

50. Which of the following equations is/are true? (*Lesson 32*)

- I. $\log_5(1) = 5$
II. $\log(\sqrt[3]{100}) = \frac{2}{3}$
III. $\ln(e) = 1$

- A. I and II only
B. II and III only
C. I and III only
D. I, II, and III are all true
E. I, II, and III are all false

51. Solve for p : (*Lesson 10*)

$$\frac{4}{2p-3} + \frac{10}{4p^2-9} = \frac{1}{2p+3}$$

- A. $p = -\frac{3}{2}$
B. $p = \frac{5}{6}$
C. $p = -\frac{25}{6}$
D. There is no solution
E. None of the above

52. Given $f(x) = \log_3 \left(\frac{7-x}{2} \right)$, which of the following is/are true? (*Lesson 32*)

- I. The domain of f is $(-\infty, 7]$
- II. The range of f is $(0, \infty)$
- III. $f(-5) = 2$

- A. I only
- B. II only
- C. III only
- D. I and III only
- E. I, II, and III are all false

53. Simplify; do not include negative exponents in your final answer. (*Lesson 9*)

$$\frac{x - x^{-2}}{1 - x^{-2}}$$

You may need to use one of the factoring formulas for cubes:

$$\begin{aligned}x^3 - y^3 &= (x - y)(x^2 + xy + y^2) \\x^3 + y^3 &= (x + y)(x^2 - xy + y^2)\end{aligned}$$

- A. x
- B. $\frac{x}{x+1}$
- C. $x - 1$
- D. $\frac{x^2+x+1}{x+1}$
- E. $x + 1$

54. Solve the following logarithmic equation. (*Lesson 34*)

$$\log(x) - \frac{1}{2}\log(-15 - 17x) = -\log(2)$$

- A. There are two real solutions.
Both are positive.
- B. There are two real solutions.
Both are negative.
- C. There are two real solutions.
One is positive and one is negative.
- D. There are no real solutions for x .
- E. None of the above

55. Find the domain of the function $f(x) = \frac{(4-\sqrt{x})^2}{x^2-1}$ and express the solutions in interval notation.
(*Lesson 19*)

- A. $(-\infty, -1) \cup (-1, 1) \cup (1, \infty)$
- B. $(-\infty, -1) \cup (1, \infty)$
- C. $(1, \infty)$
- D. $[0, 1) \cup (1, \infty)$
- E. $[0, \infty)$

56. Solve the system of equations, then indicate the number of times the graphs intersect.
(*Lesson 36*)

$$\begin{cases} x^2 + y^2 = 25 \\ 3x + 4y = 25 \end{cases}$$

- A. 0
- B. 1
- C. 2
- D. 3
- E. 4

57. A certain city charges \$0.00361 per gallon of water used, up to 5,000 gallons, and \$0.00417 per gallon of water used for more than 5,000 gallons. Find a piecewise-defined function B that specifies the total bill for water usage of x gallons. (*Lesson 27*)

- A. $B(x) = \begin{cases} 0.00361x, & \text{if } x \leq 5,000 \\ 0.00417x, & \text{if } x > 5,000 \end{cases}$
- B. $B(x) = \begin{cases} 0.00361x, & \text{if } x \leq 5,000 \\ 0.00778x, & \text{if } x > 5,000 \end{cases}$
- C. $B(x) = \begin{cases} 0.00361x, & \text{if } x \leq 5,000 \\ 0.00417x - 2.8, & \text{if } x > 5,000 \end{cases}$
- D. $B(x) = \begin{cases} 0.00361x, & \text{if } x \leq 5,000 \\ 0.00417x + 18.05, & \text{if } x > 5,000 \end{cases}$
- E. $B(x) = \begin{cases} 0.00361x, & \text{if } x \leq 5,000 \\ 0.00417x - 20.85, & \text{if } x > 5,000 \end{cases}$

58. Divide and simplify. (*Lesson 7*)

$$\frac{x^2 - 2x}{2x^2 + 5x - 3} \div \frac{x^2 - 5x + 6}{x^2 - 9}$$

- A. $\frac{x(x+2)(x-6)}{2x-3(x-3)^2}$
- B. $\frac{x}{2x-1}$
- C. $\frac{x(x+2)(x-6)}{2x-3}$
- D. $\frac{x(x-2)^2}{(2x-1)(x+3)^2}$
- E. None of the above

59. To fill an order for 150 office desks, a furniture distributor must ship the desks from two warehouses. The shipping cost per desk is \$48 from the western warehouse and \$70 from the eastern warehouse. If the total shipping charge is \$8,410, how many desks were shipped from the eastern warehouse? (*Lesson 37*)

- A. 55
- B. 80
- C. 70
- D. 95
- E. 100

60. If $x = 0$, which of the following functions is/are undefined? (*Lessons 19 & 32*)

$$\begin{aligned}f(x) &= \frac{1}{x} \\g(x) &= \sqrt{x} \\h(x) &= \log x \\k(x) &= \frac{x}{2}\end{aligned}$$

- A. f and g only
- B. f and h only
- C. g and h only
- D. g and k only
- E. h and k only

61. Parents of a newborn baby are given a gift of \$10,000 and will choose between two options to invest for their child's college fund. Option 1 is to invest the gift in a fund that pays an average annual interest rate of 11% compounded quarterly; option 2 is to invest the gift in a fund that pays an average annual interest rate of 10.75% compounded continuously. Calculate the value of each investment using the formulas $A = Pe^{rt}$ and $A = P\left(1 + \frac{r}{n}\right)^{nt}$. Assume the investments have terms of 18 years and round your answers to the nearest dollar. (*Lesson 31*)

- A. Option 1 = \$70,517
Option 2 = \$69,240
- B. Option 1 = \$67,494
Option 2 = \$72,427
- C. Option 1 = \$72,427
Option 2 = \$69,240
- D. Option 1 = \$67,494
Option 2 = \$69,240
- E. Option 1 = \$69,240
Option 2 = \$70,517

62. Solve $P + N = \frac{C+2}{C}$ for C . (*Lesson 11*)

A. $C = \frac{2}{P+N}$

B. $C = \frac{PN}{2}$

C. $C = \frac{2}{PN-1}$

D. $C = \frac{P+N}{2}$

E. $C = \frac{2}{P+N-1}$

63. Express the number in the form $\frac{a}{b}$, where a and b are integers: (*Lessons 1 & 2*)

$$-2^2 + \left(\frac{1}{2}\right)^0 + 16^{-\frac{3}{4}}$$

A. -11

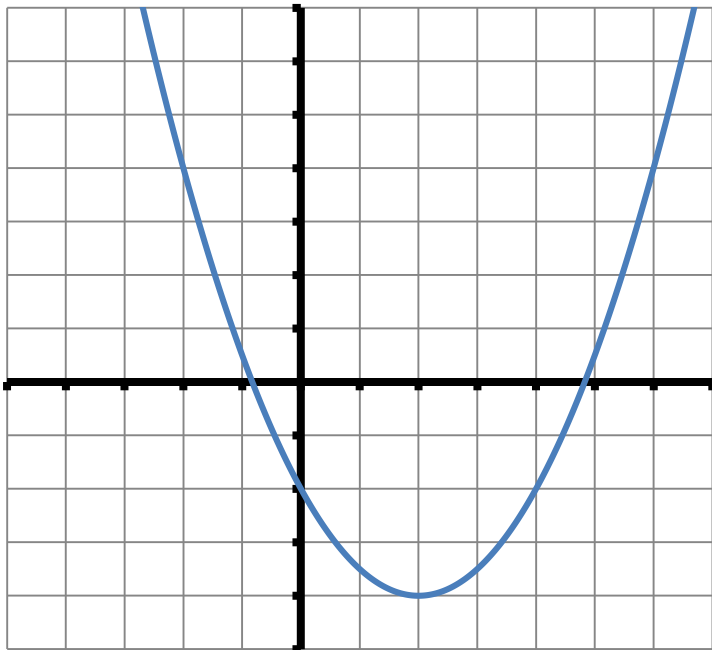
B. $-\frac{31}{8}$

C. $\frac{33}{8}$

D. $\frac{41}{8}$

E. $-\frac{23}{8}$

64. Find the function whose graph is given below. (*Lessons 24, 25*)
(each tick mark represents one unit on the graph)



A. $f(x) = \frac{1}{2}x^2 + 2x - 2$

B. $f(x) = -x^2 + 4x - 2$

C. $f(x) = x^2 - 4x - 2$

D. $f(x) = -\frac{1}{2}x^2 - 2x + 2$

E. $f(x) = \frac{1}{2}x^2 - 2x - 2$

ANSWERS

1. E	2. A	3. A	4. C
5. D	6. D	7. D	8. C
9. A	10. E	11. B	12. B
13. E	14. B	15. E	16. C
17. B	18. C	19. C	20. A
21. D	22. E	23. D	24. D
25. B	26. A	27. D	28. C
29. B	30. E	31. A	32. D
33. B	34. A	35. C	36. C
37. E	38. A	39. C	40. C
41. A	42. E	43. D	44. D
45. E	46. B	47. E	48. C
49. C	50. B	51. C	52. E
53. D	54. D	55. D	56. B
57. C	58. B	59. A	60. B
61. A	62. E	63. E	64. E

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