



Chapter Assessment

Chapter 2, Form A, page 1

Write the letter that best answers the question or completes the statement.

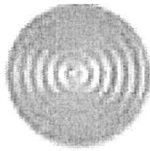
- _____ 1. Find the opposite of $-(3 + 3.5)$.
a. -6.5 b. 6.5 c. 0.5 d. -0.5
- _____ 2. Add: $-25 + 26 + |-18|$.
a. 32 b. -16 c. 19 d. 68
- _____ 3. Juan has \$63 in his savings account. He withdrew \$16 one week and deposited \$28 the next week. What is the balance in his account?
a. \$75 b. \$107 c. \$19 d. \$51
- _____ 4. Complete: $-2 - (-7) = -2 + ?$.
a. -7 b. -9 c. 7 d. 9
- _____ 5. Subtract: $-3 - (-47)$.
a. -50 b. 44 c. 50 d. -44
- _____ 6. Evaluate $(-64)(-110)$.
a. -7040 b. 46 c. 174 d. 7040
- _____ 7. On Sunday, the temperature was 82°F in Phoenix and -7°F in Minneapolis. How much warmer was it in Phoenix that day?
a. 75°F b. -7°F c. 82°F d. 89°F
- _____ 8. Evaluate $7b + 9$ for $b = \frac{1}{2}$.
a. 23 b. $3\frac{1}{2}$ c. $12\frac{1}{2}$ d. $16\frac{1}{2}$
- _____ 9. Which expression is equivalent to $(4)(6 - 2x)$?
a. $24 - 2x$ b. $24 - 8x$ c. $3(8 - 2x)$ d. $6(4 - 2x)$
- _____ 10. Sam charges \$0.89 per pound for grapes. Which expression shows the cost for p pounds of grapes?
a. $0.89 \div p$ b. $0.89 + p$ c. $0.89p$ d. $0.89(9p - 1)$



Chapter Assessment

Chapter 2, Form A, page 2

- _____ 11. Add: $(2b - 4) + (8b - 6)$.
- a. $10b + 2$ b. $6b - 2$ c. $10b - 10$ d. $-6b + 10$
- _____ 12. Add: $(5e + 9f) + (2e - 4f)$.
- a. $7e + 13$ b. $7e - 5f$ c. $3e + 5f$ d. $7e + 5f$
- _____ 13. Let $a = -2$ and $b = 4$. Find $a + b$.
- a. -6 b. -2 c. 4 d. 2
- _____ 14. Subtract: $(6b + 1) - (2b + 4)$.
- a. $3b - 3$ b. $4b + 5$ c. $8b + 5$ d. $4b - 3$
- _____ 15. A recipe for clam chowder says to add water to the clam broth to get $2\frac{1}{3}$ cups of liquid. If there is $\frac{1}{2}$ cup of clam broth, how much water should be added?
- a. $\frac{1}{3}$ cup b. $1\frac{5}{6}$ cup c. $\frac{5}{6}$ cup d. $\frac{1}{2}$ cup
- _____ 16. Identify the property illustrated by $4(3 + 2) = (4 \cdot 3) + (4 \cdot 2)$.
- a. Associative b. Commutative c. Distributive d. Transitive
- _____ 17. Identify the property illustrated by $\frac{3}{4} + \frac{2}{3} = \frac{2}{3} + \frac{3}{4}$.
- a. Associative b. Commutative c. Distributive d. Transitive
- _____ 18. Identify the property illustrated by $4 + (3 + 7) = (4 + 3) + 7$.
- a. Associative b. Commutative c. Distributive d. Transitive



Chapter Assessment

Chapter 3, Form A, page 1

Write the letter that best answers the question or completes the statement.

_____ 19. Solve $x + 0.54 = 2$.

- a. $x = 1.46$ b. $x = 2.54$ c. $x = 0.34$ d. $x = 0.46$

_____ 20. Solve $\frac{x}{9.2} = 8.1$.

- a. $x = 745.2$ b. $x = 74.52$ c. $x = 17.3$ d. $x = 73.52$

_____ 21. Solve $5x + 1.7 = 7x - 12.3$.

- a. $x = 7$ b. $x = 8$ c. $x = 5$ d. $x = 6$

_____ 22. Kendall wants to drive 280 miles in 7 hours. What speed in miles per hour should she average for the trip?

- a. 45 b. 40 c. 50 d. 55

_____ 23. Jerry pays \$1.40 per gallon for premium gasoline. He spends \$16.80 and wants to know how many gallons he bought. Which equation models this situation?

- a. $16.80 + x = 1.40$ b. $16.80 - 1.40 = x$
c. $1.40 - x = 16.80$ d. $1.40x = 16.80$

_____ 24. Solve $3m - 17 = 19$.

- a. $m = 3$ b. $m = 36$ c. $m = 15$ d. $m = 12$

_____ 25. Solve $\frac{3x}{2} + 6 = 9$.

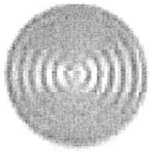
- a. $x = 10$ b. $x = -10$ c. $x = 2$ d. $x = -2$

_____ 26. Solve $6 - 6(x - 2) = 3(3x + 1)$.

- a. $x = 1$ b. $x = 0$ c. $x = -\frac{17}{15}$ d. $x = -\frac{1}{5}$

_____ 27. The cost of 10 pencils plus tax of \$0.15 is \$2.15. Which equation models the situation?

- a. $10(x + 0.15) = 2.15$ b. $10x + 0.15 = 2.15$
c. $10x = 2.15 + 0.15$ d. $10 + 0.15x = 2.15$



Chapter Assessment

Chapter 3, Form A, page 2

_____ 28. If $c - \frac{5}{8} = 6$, what is the value of c ?

a. $5\frac{3}{8}$

b. $-1\frac{7}{8}$

c. $6\frac{5}{8}$

d. $-5\frac{3}{8}$

_____ 29. Solve $2x + 4 = 84$

a. $x = -40$

b. $x = -37$

c. $x = 37$

d. $x = 40$

_____ 30. Solve $2(9 - 2y) = 42$.

a. $y = -6$

b. $y = 15$

c. $y = -15$

d. $y = 6$

_____ 31. Solve $0.4r - 1.2 = 0.3r + 0.6$.

a. $r = \frac{18}{7}$

b. $r = 6$

c. $r = 18$

d. not given

_____ 32. Which equation has no solution?

a. $2x + 4 = 2(x + 2)$

b. $2x + 4 = 2(x + 1)$

c. $3x + 5 = 2(x + 3)$

d. Neither a nor b has a solution.

_____ 33. Solve for P : $I = Prt$

a. $P = I - rt$

b. $P = \frac{rt}{I}$

c. $P = \frac{I}{rt}$

d. $P = \frac{I \cdot r}{t}$

_____ 34. The price of a shirt has been reduced by \$20. The cost of 10 shirts at the reduced price is \$50. Which equation models the situation?

a. $50(x - 20) = 10$

b. $50(x + 20) = 10$

c. $10(x + 20) = 50$

d. $10(x - 20) = 50$

_____ 35. Solve for x : $y = mx + b$

a. $x = \frac{y - b}{m}$

b. $x = \frac{b + y}{m}$

c. $x = \frac{y}{m} + b$

d. $x = y - \frac{b}{m}$

_____ 36. A triangle has an area of 72 square feet. Use the formula $A = \frac{1}{2}bh$ to find the height of the triangle if the base is 24 feet.

a. 60 feet

b. 6 feet

c. 864 feet

d. 1.5 feet

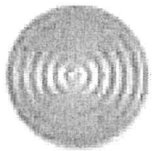


Chapter Assessment

Chapter 6, Form A, page 1

Write the letter that best answers the question or completes the statement.

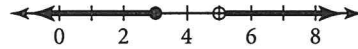
- _____ 37. Which inequality corresponds to the statement “ b is less than or equal to 1”?
- a. $b \geq 1$ b. $b \leq 1$ c. $b > 1$ d. $b < 1$
- _____ 38. Which inequality is true?
- a. $0 \leq -7$ b. $-5 > 1$ c. $1.5 < 1.2$ d. $3.90 > 3.09$
- _____ 39. Which sentence represents $n < 4$ on the number line.
- a. Draw a shaded circle at 4. Shade the numbers to the right of 4.
 b. Draw an unshaded circle at 4. Shade the numbers to the left of 4.
 c. Draw an unshaded circle at 4. Shade the numbers to the right of 4.
 d. Draw a shaded circle at 4. Shade the numbers to the left of 4.
- _____ 40. Burt wants to buy a pair of shoes that cost \$49.95. He also wants to buy a T-shirt, but he cannot spend more than \$60. Which inequality models this situation?
- a. $49.95 - x > 60$ b. $49.95 + x \geq 60$ c. $x + 49.95 \leq 60$ d. $60 + x \geq 49.95$
- _____ 41. Solve $|x - 3.45| = 0.25$.
- a. $x = 3$ and $x = 3.7$ b. $x = -3$ and $x = -3.7$
 c. $x = 3.2$ d. $x = 3.2$ and $x = 3.7$
- _____ 42. Solve $\frac{m}{10} - 16 < 40$.
- a. $m < 560$ b. $m > 560$ c. $m < 240$ d. $m > 240$
- _____ 43. Solve $-8p < -56$.
- a. $p > 7$ b. $p < 7$ c. $p > -7$ d. $p < -7$
- _____ 44. Solve $10 \leq 8 - x$.
- a. $x \leq 2$ b. $x \leq -2$ c. $x \geq 2$ d. $x \geq -2$
- _____ 45. Solve $12 + 5x > 7x - 12$.
- a. $x < 12$ b. $x < -12$ c. $x > 12$ d. $x < -12$



Chapter Assessment

Chapter 6, Form A, page 2

_____ 46. Which inequality represents the graph?



- a. $-2 < x < 1$ b. $4 \leq x$ c. $x \leq 3$ or $x > 5$ d. $x > 1$

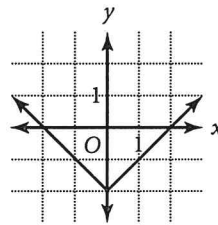
_____ 47. Solve $-5 \leq 2x - 1 \leq 3$.

- a. $-3 \leq x \leq 2$ b. $x \leq -2$ or $x \geq 2$ c. $x \leq -3$ or $x \geq 2$ d. $-2 \leq x \leq 2$

_____ 48. A company is producing gauges for a contractor. The overhead charges are \$500. The production costs need to be kept under \$1000. How many gauges can the company produce at \$10 each and keep the costs under \$1000?

- a. under 100 b. under 50 c. over 100 d. over 50

_____ 49. Which equation represents the graph?



- a. $y = |x + 2|$ b. $y = |x - 2|$
 c. $y = |x| + 2$ d. $y = |x| - 2$

_____ 50. What is the domain and range of the function $y = -|x|$?

- a. Domain: all real numbers; range: all negative numbers and 0
 b. Domain: all negative numbers and 0; range: all real numbers
 c. Domain: all real numbers; range: all positive numbers and 0
 d. Domain: all positive numbers and 0; range: all real numbers

_____ 51. Evaluate $|-20 - 20|$.

- a. -40 b. 40 c. 0 d. not here

_____ 52. Solve $|x + 1| = 5$.

- a. $x = 6$ and $x = -4$ b. $x = 6$ and $x = 4$
 c. $x = -6$ and $x = 4$ d. $x = -6$ and $x = -4$

_____ 53. Solve $|x - 6| \geq 14$.

- a. $-8 \leq x \leq 20$ b. $x \geq 20$ or $x \geq -8$ c. $x \geq 20$ or $x \leq -8$ d. not given

_____ 54. Solve $|x + 8| \geq 1$.

- a. $-9 < x < -7$ b. $-9 > x > -7$ c. $7 < x < 8$ d. no solution

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Chapter Assessment

Chapter 5, Form A, page 1

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_____ 55. What is the slope of a line that passes through the origin and the point $(-2, 1)$?

- a. $-\frac{1}{2}$ b. 2 c. $\frac{1}{2}$ d. -2

_____ 56. What is the slope of a line with a rise and a run of 4?

- a. $\frac{4}{5}$ b. $-\frac{4}{5}$ c. $\frac{5}{4}$ d. 1

_____ 57. An equation of a line that has a slope of 0 and contains the point $(0, -2)$ is

- a. $x = 2$. b. $x = -2$. c. $y = -2$. d. $y = x - 2$.

_____ 58. In a graph of a linear function, the change in y is 3. The change in x is 9. The rate of change is

- a. 3. b. 9. c. $\frac{1}{3}$. d. $\frac{1}{9}$.

_____ 59. The slope of the line containing the points $(2, -4)$ and $(3, -7)$ is

- a. -11 . b. -3 . c. $-\frac{1}{3}$. d. 3.

_____ 60. Write the equation $y = \frac{1}{2}x + 5$ in standard form.

- a. $x - 2y = 10$ b. $x - 2y - 10 = 0$ c. $-x + 2y = 10$ d. $x - 2y = -10$

_____ 61. Which line is parallel to $y = \frac{1}{4}x + 2$?

- a. $y = \frac{1}{4}x + 5$ b. $y = -4x + 5$ c. $y = -\frac{1}{4}x + 5$ d. $y = 4x + 5$

_____ 62. If y varies directly as x and $y = 8$ when $x = 3$, find an equation of direct variation.

- a. $y = \frac{3}{8}x$ b. $y = -\frac{8}{3}x$ c. $y = \frac{8}{3}x$ d. $y = 8x$

63. Determine the domain and range of the given relation.

$$\{(4, -4), (5, -5), (6, -6), (7, -7)\}$$

[A] Domain: $\{(6, -6), (7, -7)\}$

Range: $\{(4, -4), (5, -5)\}$

[B] Domain: $\{(4, -4), (5, -5)\}$

Range: $\{(6, -6), (7, -7)\}$

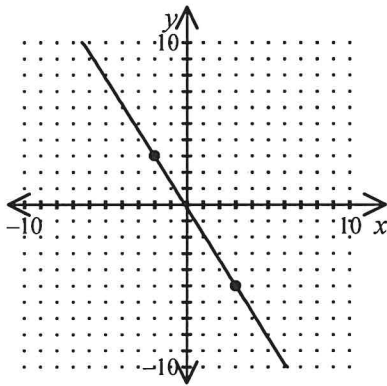
[C] Domain: $\{-4, -5, -6, -7\}$

Range: $\{4, 5, 6, 7\}$

[D] Domain: $\{4, 5, 6, 7\}$

Range: $\{-4, -5, -6, -7\}$

64. Find the slope of the line.



[A] $-\frac{8}{5}$ [B] $-\frac{5}{8}$ [C] $\frac{8}{5}$ [D] $\frac{5}{8}$

65. Find the slope for the given rise and run.

rise: -3 , run: $2\frac{4}{5}$

[A] $-\frac{14}{15}$ [B] $\frac{15}{14}$ [C] $-\frac{15}{14}$ [D] $\frac{14}{15}$

66. Find the slope of the line that contains the given pair of points.

(a, b) and (c, d)

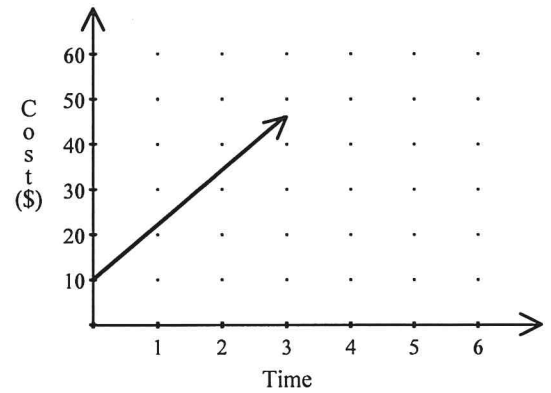
[A] $\frac{d-b}{c-a}$

[B] $\frac{b-d}{c-a}$

[C] $\frac{a-c}{d-b}$

[D] $\frac{a-c}{b-d}$

67. The graph for a stable that charges a \$10 flat fee plus an hourly rate is shown below. Which is the hourly rate charged?



- [A] \$7 per hour [B] \$17 per hour
[C] \$12 per hour [D] \$6 per hour

68. The number of gears G a machine can make varies directly as the time T of operation. If it can make 2688 gears in 7 hours, how many gears can it make in 8 hours?

[A] 1764 [B] 2352 [C] 3072 [D] 3840

69. If $x = 22$ when $y = 110$ and x varies directly as y , then find x when $y = 130$.

[A] 16 [B] 26 [C] 36 [D] 31

70. Which is the equation of the line with slope $-\frac{6}{7}$ which crosses the y -axis at -4 ?

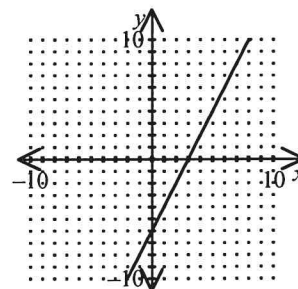
[A] $y = -\frac{6}{7}x - 4$

[B] $y = \frac{6}{7}x + 4$

[C] $x = -\frac{6}{7}y - 4$

[D] $y = -\frac{6}{7}x + 4$

71. Which is the equation of the line graphed below?



[A] $y = -6x + 2$

[B] $y = -2x + 6$

[C] $y = 2y - 6$

[D] $y = 2x - 6$

72. Write the equation in standard form: $y = -\frac{4}{7}x + 4$

[A] $-7y = 4x + 28$ [B] $x = -\frac{4}{7}y + 4$

[C] $-7x = 4y + 28$ [D] $4x + 7y = 28$

73. Find the x - and y -intercepts for the graph of the equation: $5x - 7y = -3$

[A] $-1\frac{2}{3}, 2\frac{1}{3}$ [B] $-\frac{3}{5}, \frac{3}{7}$

[C] $5, -7$ [D] $-8, 4$

74. Write an equation in point-slope form for the line that has the given slope and that contains the given point: slope $\frac{1}{4}$, $(-4, 3)$

[A] $y + 3 = \frac{1}{4}(x - 4)$ [B] $y + 4 = \frac{1}{4}(x - 3)$

[C] $y - 3 = \frac{1}{4}(x + 4)$ [D] $y - 4 = \frac{1}{4}(x + 3)$

75. Which is the slope of a line that is perpendicular to the graph of $y = 1\frac{1}{7}$?

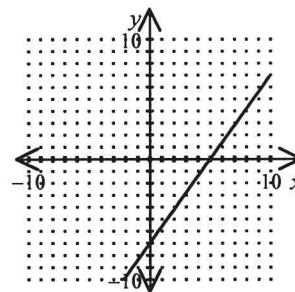
[A] 1 [B] undefined [C] 0 [D] -1

76. Which is the slope of a line parallel to the line $5x - y = 6$?

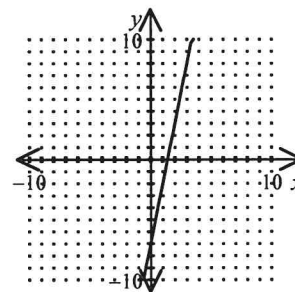
[A] -5 [B] $\frac{1}{5}$ [C] 5 [D] $-\frac{1}{5}$

77. Find the x -intercept and y -intercept of the graph of the equation: $y = 5x - 7$

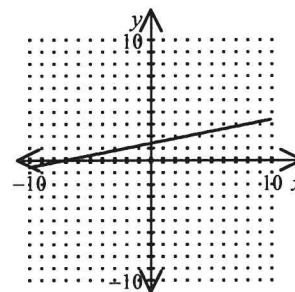
[A] $5, -7$



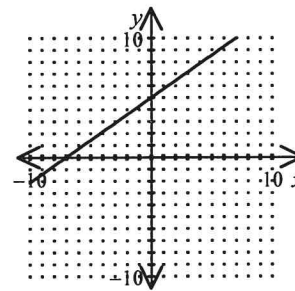
[B] $\frac{7}{5}, -7$



[C] $-7, \frac{7}{5}$



[D] $-7, 5$



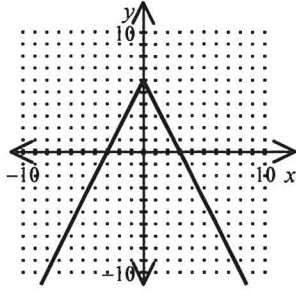
78. Which is the equation in standard form of the line that is perpendicular to $4x + 6y = 4$ and contains $(-1, -3)$?

[A] $3x - 2y = 3$ [B] $3x + 2y = -9$

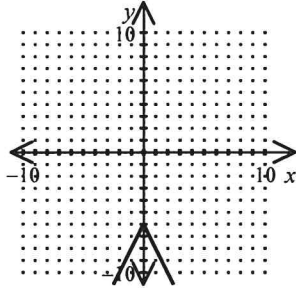
[C] $2x - 3y = 7$ [D] $x + 3y = -10$

90. Which is the graph of $y = 2|x| + 6$?

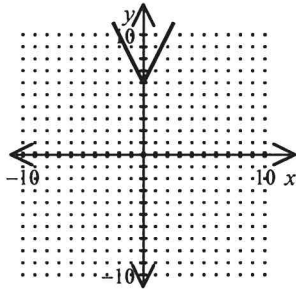
[A]



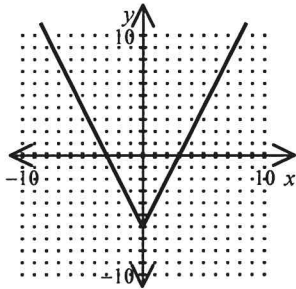
[B]



[C]



[D]



91. Solve the equation if possible. Check your answers.

$$|6x - 6| = 5$$

[A] $-\frac{11}{6}, \frac{1}{6}$

[B] $\frac{5}{3}, \frac{5}{6}$

[C] $-\frac{17}{6}, \frac{5}{6}$

[D] $\frac{11}{6}, \frac{1}{6}$

92. Solve the inequality. Check your answers.

$$|3x + 4| \geq 3$$

[A] $x \leq -\frac{7}{3}$ OR $x \geq -\frac{1}{3}$

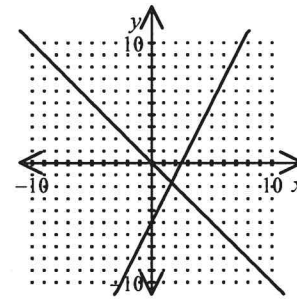
[B] $x < -\frac{7}{3}$ OR $x > -\frac{1}{3}$

[C] $-\frac{7}{3} \leq x \leq -\frac{1}{3}$ [D] none of these

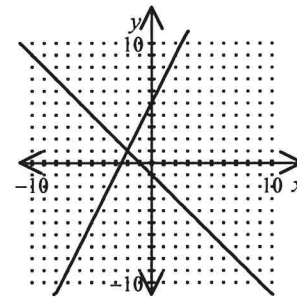
93. Which is the graph of the system?

$$\begin{cases} x + y = -1 \\ 2x - y = -5 \end{cases}$$

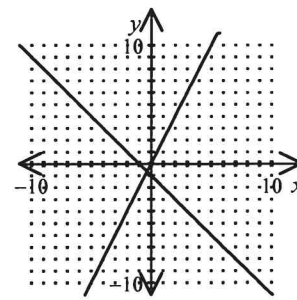
[A]



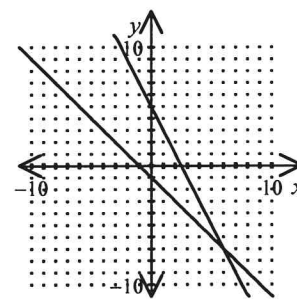
[B]



[C]



[D]





Chapter Assessment

Chapter 5, Form A, page 2

_____ 94. If y varies directly as x and $y = \frac{2}{3}$ when $x = \frac{1}{2}$, find an equation of direct variation.

a. $y = \frac{3}{4}x$

b. $y = -\frac{4}{3}x$

c. $y = \frac{4}{3}x$

d. $y = -\frac{3}{4}x$

_____ 95. What are the slope and y -intercept of the equation $3x - 4y = 4$?

a. slope: -3 ; y -intercept: -4

b. slope: $\frac{3}{4}$; y -intercept: -1

c. slope: 3 ; y -intercept: 4

d. slope: $\frac{3}{4}$; y -intercept: -4

_____ 96. What is the slope of a line perpendicular to $x - 3y = 4$?

a. -3

b. 3

c. $\frac{1}{3}$

d. $-\frac{1}{3}$

_____ 97. Which line contains the point $(0, 2)$ and is perpendicular to $y = \frac{1}{4}x + 2$?

a. $y = \frac{1}{4}x + 1$

b. $y = -\frac{1}{4}x + 2$

c. $y = -4x + 2$

d. $y = 4x + 2$

_____ 98. Which point is on the graph of the equation $3x + 6y = 27$?

a. $(0, 9)$

b. $(5, 2)$

c. $(1, -5)$

d. $(-5, 7)$

_____ 99. An equation for the line that contains $(2, 4)$ and has an undefined slope is

a. $y = 2x + 4$.

b. $x = 2$.

c. $y = 2$.

d. $y = 0$.

_____ 100. An equation for the line that crosses the x -axis at $x = -1$ and the y -axis at $y = 3$ is

a. $3x + y = 3$.

b. $3x = y + 3$.

c. $y = 3x + 3$.

d. $y + 3x = -3$.

_____ 101. Which equation represents a horizontal line?

a. $y = x$

b. $y = -2$

c. $x = 0$

d. $y = 2x + 1$

_____ 102. $\frac{2+3}{5+3 \cdot 5}$ _____

_____ 103. $4(10)^3$ _____

_____ 104. $9 + 3(5 + 6)$ _____