

Name: _____

Date: _____

Shop Time 9F

The Final Shop Assignment

Directions: Evaluate.

1. $[8 - 3(2)] \cdot 6$ ans. _____

2. $16 - [54 \div (3)(3)]$ ans. _____

3. Write 0.07 as a percent. ans. _____

4. $[12 \div (3 \cdot 2)] + 4$ ans. _____

5. $|2 - 3| + 8$ ans. _____

6. $-3|8 - 1| + 20$ ans. _____

7. $-5 + 2 - 4 + 9$ ans. _____

8. $-7(2)$ ans. _____

9. $(-2)(-2)(-2)(-2)$ ans. _____

10. -5^2 ans. _____

11. $(-5)^2$ ans. _____

12. Write 157% as a decimal. ans. _____

13.
$$\begin{bmatrix} 5 \\ 2 \\ 1 \end{bmatrix} + \begin{bmatrix} -8 \\ 2 \\ 3 \end{bmatrix}$$
 ans. _____

14.
$$\begin{bmatrix} 5 & 7 \\ 14 & -8 \end{bmatrix} - \begin{bmatrix} 4 & -7 \\ 10 & -9 \end{bmatrix}$$
 ans. _____

15. $5(3 + 7)$ ans. _____

16. $-(8 + 4 - 1)$ ans. _____

Directions: Evaluate when $w = -4$, $x = 2$, $y = -5$, and $z = 10$.

17. wxy ans. _____

18. $y - 2 + w - 5$ ans. _____

19. $2x + 2y - z$ ans. _____

20. $2x(2y) + wx$ ans. _____

21. $zz - yy + ww$ ans. _____

22. $7x - 2z + 4w$ ans. _____

23. $-3x + 2(z - y)$ ans. _____

24. $y^2 - z^3 + 500x$ ans. _____

25. $5w^3 + 2x^4 - 3y^2z$ ans. _____

26. $-w + 3x^5 + 30y^2 - z$ ans. _____

27. $zyxw$ ans. _____

28. $-xy + yx + yx + xy + yx - 3(xy)$ ans. _____

29. $3(x + y)$ ans. _____

30. $-2w(3x - 4y + z)$ ans. _____

Directions: Simplify.

31. $4 + c - 1$ ans. _____

32. $x + 8 + 8 + x - 18$ ans. _____

33. $x(x - 4)$ ans. _____

34. $9(-8 - 10r)$ ans. _____

35. $-6a(a - 1) + x^2$ ans. _____

36. $\frac{5}{6} \div \frac{2}{3}$ ans. _____

Directions: Simplify.

37. $\frac{11}{12} \div \frac{1}{2}$

ans. _____

38. $\frac{x}{y} \div \frac{y}{x}$

ans. _____

39. $\frac{a}{b} \div \frac{c}{d}$

ans. _____

40. $\frac{x^5 y^9 z}{xyz}$

ans. _____

41. $\frac{a^{12} b^7 c d^2}{a^6 b^8 c d}$

ans. _____

Directions: Solve the following equations.

42. $\frac{1}{3}x + 6 = -8$

ans. _____

43. $2y = 1$

ans. _____

44. $5x + 5x \geq 30$

ans. _____

45. $3r - 2r < 5$

ans. _____

46. $3(r + 9) = 21$

ans. _____

47. $y + 4 > -2y + 8$

ans. _____

48. $7y + 3 - 2y = 4y - 2$

ans. _____

49. $\frac{4}{9}(2x - 4) = 48$

ans. _____

50. $6(3 - x) \leq 3x$

ans. _____

51. $2 + 0.8t = -0.4 + 0.5t$

ans. _____

Directions: Solve for the indicated variable.

52. $V = LWH$; for H ans. _____
53. $A = \frac{1}{2}bh$; for h ans. _____
54. $V = \frac{1}{3} \pi r^2 h$; for h ans. _____
55. $-2x + 3y = 15$, for y ans. _____
56. $4 = y - x$; for y ans. _____

Directions: Fill in the blank.

57. The graph of $y = -7$ is a horizontal / vertical line. **CIRCLE ONE**
58. The graph of $x = 1$ is a horizontal / vertical line. **CIRCLE ONE**
59. The formula for slope is _____
60. The formula for slope-intercept form is _____
61. The formula for standard form is _____
62. The formula for point-slope form is _____
63. The maximum or minimum point of an absolute value graph is called its _____
64. In the general formula for absolute value equations $y = |x + b| + c$, the b value moves the vertex _____ and the c value moves the vertex _____
65. The variable that stands for slope is always a lower-case _____
66. The variable that stands for the y-intercept always a lower-case _____
67. In math, the greek symbol Δ stands for _____

Directions: Find the x and y intercepts.

68. $x + 2y = 18$ x_{int} _____ y_{int} _____
69. $3x - y = 9$ x_{int} _____ y_{int} _____

Directions: Find the x and y intercepts.

70. $-5x + y = 30$

X_{int} _____ Y_{int} _____

71. $7x - 2y = 4$

X_{int} _____ Y_{int} _____

72. $-6x + 3y = -9$

X_{int} _____ Y_{int} _____

Directions: Graph the following equations on graph paper.

73. $y = -x + 3$

74. $y = \frac{3}{2}x - 5$

75. $y = -4$

76. $2x + 2y = 4$

77. $2x - 5y = 10$

78. $x = 1$

Directions: Solve by GRAPHING on graph paper.

79. $y = 3x - 7$ and $y = -x + 1$

ans. _____

80. $x + 2y = 4$ and $6x + 8y = 24$

ans. _____

Directions: Solve by SUBSTITUTION.

81. $3y + 2x = 4$ and $-6x + y = -7$

ans. _____

82. $y = \frac{1}{4}x + 4$ and $y = -4x + 12\frac{1}{2}$

ans. _____

83. $x + y = -4$ and $y = -x - 4$

ans. _____

Directions: Solve by **SUBSTITUTION**.

84. $y = x + 1$ and $y = 2x - 1$ ans. _____

85. $y = -4x + 8$ and $y = x + 7$ ans. _____

Directions: Solve by **ELIMINATION**.

86. $x - 5y = -10$ and $3x + 5y = 10$ ans. _____

87. $2x + 6y = 0$ and $-2x - 5y = 0$ ans. _____

88. $3x + 2y = 29$ and $2x - 3y = -11$ ans. _____

89. $-2x + 3y = 25$ and $-2x + 3y = 25$ ans. _____

90. $4x - 3y = 11$ and $3x - 5y = -11$ ans. _____

Now you are ready for the final exam.

GOOD LUCK!

Mr. Matos

