

Name _____ Mike Huff Elementary Algebra Test 2

Show all work on the test for partial credit.

(4 points)

1. Evaluate the expression: $\left(\frac{1}{3} - \frac{2}{12}\right)^2 - \frac{3}{4} \cdot \left(\frac{2}{3}\right)^2$

(4 points)

2. Evaluate the expression: $-2\left[5 - (3 - 2^2)^2\right] - (3 - 4)^3$

(4 points)

3. Evaluate the expression $-x^2 - 3x - 1$ for $x = -\frac{1}{2}$

Elementary Algebra Test 2

(4 points)

4. Evaluate the expression $(x^2 - 2)(x - 2)$ for $x = -3$

(4 points)

5. Distribute and Combine Like Terms: $-3(3 - 2x) - 4(-x - 1) - (x + 5)$

(4 points)

6. Distribute and Combine Like Terms: $-\frac{1}{3}(6 - 9x) - \frac{1}{4}(8 - 4x)$

Elementary Algebra Test 2

(4 points)

7. Solve for x : $2(2x - 1) - 5(x - 2) = 4(x - 2)$

(4 points)

8. Solve for x : $\frac{2}{3}\left(\frac{9}{8} - 3x\right) - \frac{5}{3} = \frac{1}{3}$

(4 points)

9. Solve for m : $y = mx + b$

(4 points)

10. Given $A = P(1 + rt)$, find A when $t = 5$, $r = 0.05$, and $P = 1000$.

Elementary Algebra Test 2

(4 points)

11. Translate to a mathematical expression, use x to represent the number.
- a) Four less than three times a number. _____
 - b) The difference between a number and seven. _____
 - c) Five times the sum of a number and seven. _____
 - d) Two more than four times a number. _____

(5 points)

12. After a 32% discount, a new car stereo was selling for \$170.00. What was the original price of the car stereo?

(5 points)

13. The second angle of a triangle is three times as large as the first. The third angle is 30° more than the first angle. What is the measure of each angle?

(4 points)

14. The weekly profit, P , of a DVD rental store is given by the formula $1.7n - 150$, where n is the number of DVDs rented weekly.
- a) What is the weekly profit if 325 DVDs are rented?

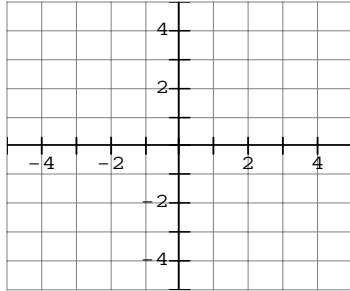
 - b) How many discs were rented if the weekly profit is \$1210.00?

Elementary Algebra Test 2

(4 points)

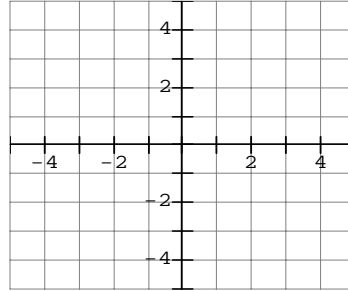
15. Plot the following points and identify the quadrant in which they lie.

a) $(-2, 3)$



Quadrant _____

b) $(-4, -2)$



Quadrant _____

(6 points)

16. Determine if the ordered pair is a solution of the equation.

a) $(4, -3)$ $y = -2x + 5$

b) $\left(\frac{1}{2}, -\frac{3}{2}\right)$ $y = -3x + 3$

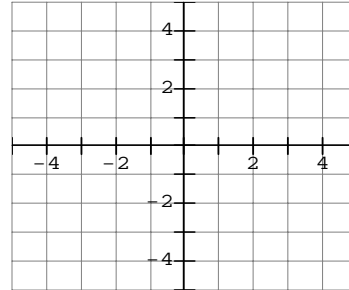
Elementary Algebra Test 2

(4 points)

17. Find the x and y intercepts and graph: $-3x + 2y = 12$

x-intercept _____

y-intercept _____

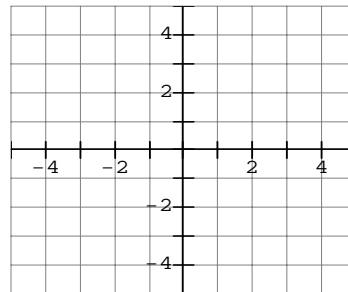


(12 points)

18. Graphing by plotting points. Sketch a graph of the following equations by making a table of values and plotting the points.

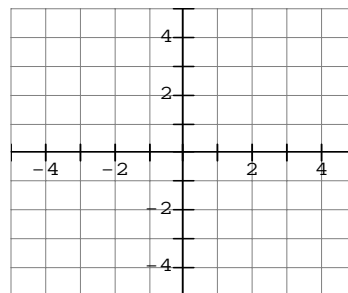
a) $y = -x + 3$

x	y
0	0

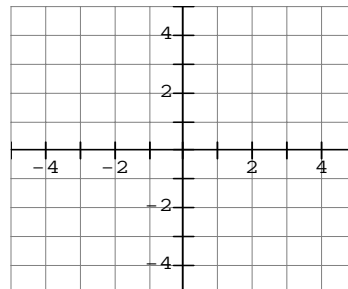


b) $6x + 3y = -12$

x	y
0	0



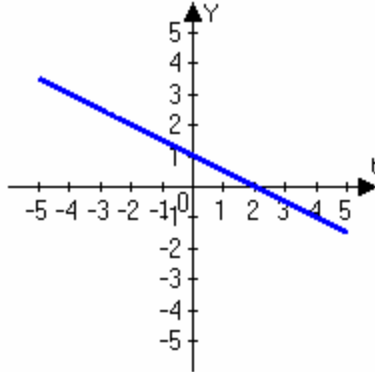
c) $y = -\frac{3}{2}x + 4$



Elementary Algebra Test 2

(4 points)

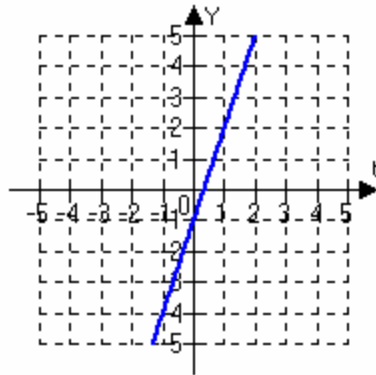
19. Find the slope of the line whose graph is given below:



$m =$ _____

(4 points)

20. Find the slope-intercept equation of the line given below:



The equation is $y =$ _____

(4 points)

21. Find the equation of the line that passes through the points (4,-2) and (2,2).

Elementary Algebra Test 2

(4 points)

22. Find an equation of the line parallel to the line $y = 2x - 5$ that passes through the point $(-1, 1)$.

23. Simplify:

a) $x^5 \cdot x^2$

b) $\frac{x^5}{x^2}$

c) $\frac{x^7 y^5}{x^5 y^4}$

d) $(x^5)^3$

24. Add the following polynomials:

$$(-4x^3 + 3x^2 + 2x - 1) + (2x^3 - 2x^2 - 7x + 15)$$

25. Subtract the following polynomials:

$$(-3x^3 + 2x - 1) - (x^3 + 5x^2 - 6x + 5)$$

26. For the polynomial : $-4x^3 + 3x^2 + 2x - 1$. Find the following:

a) The leading term _____

b) The leading coefficient _____

c) The degree of the polynomial _____