

Name _____ Elementary Algebra Test 1 Fall 2008 Mike Huff

There are 27 problems. Each problem is worth 4 points for a total of 108 points.

1. Multiply.

a) $\frac{9}{5} \cdot \frac{15}{54}$

b) $\left(\frac{-6}{14}\right)\left(\frac{7}{24}\right)$

2. Perform the indicated operation.

a) Add: $\frac{5}{8} + \frac{7}{20}$

b) Subtract: $\frac{7}{15} - \frac{13}{20}$

3. Divide.

a) $\frac{4}{13} \div \frac{4}{7}$

b) $\frac{25}{11} \div \frac{5}{33}$

4. Evaluate the following expressions.

a) $-|-18|$

b) $|-6|$

5. Insert either $<$, $>$, or $=$ to make the statement true.

a) $-|-2|$ $|-1|$

b) -3.05 $- 3.01$

c) 3.34 $|-3.34|$

6. Evaluate each expression.

a) $-31 - 23$

b) $-18 - (-4)$

7. Evaluate each expression.

a) $(-5)^2$

b) -5^2

8. Evaluate the expression. $[(3 - 4)^2 - (5 - 2)^2] \cdot 3^2 - 2 \cdot 3$

9. Evaluate the expression for the given value of the variable.

$$x^2 + 2x + 3 \text{ for } x = -3$$

10. Evaluate each expression, if possible. If not possible, then explain why not.

a) $\frac{0}{4}$

b) $\frac{4}{0}$

11. Complete the statement using the given property:

a) **Commutative Property of Addition** $x + 5 =$

b) **Commutative Property of Multiplication** $3(x + y) =$

c) **Associative Property of Addition** $(3 + 5) + 7 =$

d) **Distributive Property:** $2(x + y) =$

12. Name the property.

a) $2 + (x + y) = (x + y) + 3$

b) $(x + 2)5 = 5(x + 2)$

c) $(x + y)4 = x \cdot 4 + y \cdot 4$

d) $(x + 3) + y = x + (3 + y)$

13. Combine Like Terms: $x + 6 - 5x - 14$

14. Distribute and Combine Like Terms $-(4x + 2 - 3y)$

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15. Simplify: $-(2x + 1) - 3(-4x + 2)$

16. Is $x = \frac{-2}{5}$ a solution of the equation $2x + 7 = 5 - 3x$?

17. Solve the following equation: $3.68 = 4.74 - x$

18. Solve the following equation: $\frac{-3}{5}x = 17$

19. Solve the following equation: $-3x = \frac{5}{9}$

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20. Solve the following equation: $5x + 10 - 2x = 3x + 8 - 4x$

21. Solve the following equation: $0.13x - 1.53 = 1.22 - 2x$

22. Solve the following equation: $-\frac{5}{2}x - 4 = \frac{2}{3}$

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23. Solve the following equation: $5(x - 2) - 3(x + 2) = -(x - 1)$

24. Percents

a) Write $\frac{3}{4}$ as a percent: _____

b) Write 3.79 as a percent: _____

c) Write 87% as a decimal: _____

d) Write 85% as a fraction: _____

c. The second angle of a triangle is twice as large as the first. The third angle is 5° more than twice the first angle. What is the measure of each angle?

d. Two angles are complementary. The measure of the second angle is 5 more than four times the first. Find the measure of each angle.

Name _____

MATD 0370

Elementary Algebra

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Test 1

Tools: Calculator and Scrap paper