

Summer Assignment Name _____

Geometry - All Levels

Have the following assignment completed for the first full day of class.

I. Rounding Numbers. Round each of the following to the parameter indicated.

1) 12.456 to the nearest tenth _____

2) 572.972 to the nearest tenth _____

3) 4.049 to the nearest tenth _____

4) 37.823 to the nearest hundredth _____

5) 97.78974 to the nearest thousandth _____

6) \$45.0967 to the nearest cent _____

7) \$678.398 to the nearest dollar _____

8) 53.621 to the nearest whole number _____

II. Simplify each expression: Show work that supports your answer to each problem.

$$1) \quad 2 + 7 \cdot 5$$

$$2) \quad 27 - (4 + 2)(5) - 3^2$$

$$3) \quad 8 + 4 \div 2 - 5$$

$$4) \quad (6 - 8)^2$$

$$5) \quad (-6 \times 2) \div -4$$

$$6) \quad 2 \times 2(-3 - 1)$$

$$7) \quad -4 - (1 - 5) - (-4)^2$$

$$8) \quad (6 + 25 - 7) \div 6$$

$$9) \quad 2 + 12 \div 2 + 1$$

$$10) \quad 2 - 8 \div -2 - 3 - -12 \div -6 \times 2$$

III. Simplify each expression by combining like terms and using the distributive property: Show support steps as necessary.

$$1) -6k + 7k$$

$$2) n + 4 - 9 - 5n$$

$$3) -5x + 3(6 + 7x)$$

$$4) -2n - (9 - 10n)$$

$$5) -9(6m - 3) + 6(1 + 4m)$$

$$6) -y - 10y$$

IV. Evaluate each expression with the values given. Show work to support your answer to each problem.

$$1) a - 5 - b; \text{ when } a = 10 \text{ and } b = 4$$

$$2) y^2 - x ; \text{ when } x = 4 \text{ and } y = 7$$

$$3) x + y^2 ; \text{ when } x = 3 \text{ and } y = -5$$

$$4) y - (z + z^2); \text{ when } y = 6 \text{ and } z = 2$$

$$5) (x - y)^2 \div z \text{ when } x = -2, y = -6 \text{ and } z = 8$$

$$6) y - (4 - x - y \div 2); \text{ when } x = 2 \text{ and } y = 4$$

V. Solve each equation for the value(s) of the variable: Show work to support your answer to each problem.

$$1) \quad 15 + b = 23$$

$$2) \quad -8 = \frac{x}{2}$$

$$3) \quad -24 = -3x$$

$$4) \quad 144 = -12(x + 5)$$

$$5) \quad 8 + 5x = 8$$

$$6) \quad 5n + 34 = -2(1 - 7n)$$

$$7) \quad 3(2x + 4) = 6(x + 2)$$

$$8) \quad x^2 = 16$$

Here are some links to assist you:

Rounding decimals:

https://www.khanacademy.org/math/arithmetic/arith-decimals/arith-review-rounding-decimals/e/rounding_numbers

https://www.varsitytutors.com/hotmath/hotmath_help/topics/rounding-decimals

Order of Operations:

<http://mathforum.org/dr.math/faq/faq.order.operations.html>

<http://www.purplemath.com/modules/orderops.htm>

Combining Like Terms/Distributive Property:

http://www.softschools.com/math/topics/combining_like_terms/

<http://www.mathwarehouse.com/dictionary/D-words/distributive-property-definition-and-examples.php>

Evaluating Expressions:

<https://www.mathplanet.com/education/pre-algebra/introducing-algebra/evaluate-expressions>

<https://www.khanacademy.org/math/algebra/introduction-to-algebra/alg1-substitution/v/evaluating-expressions-in-two-variables>

Solving Equations:

http://mathforum.org/library/drmath/sets/select/dm_solve_equation.html

<https://www.shmoop.com/basic-algebra/equations-variables-both-sides.html>

Solving Equations(Special cases):

http://www.montereyinstitute.org/courses/DevelopmentalMath/COURSE_TEXT2_RESOURCE/U10_L1_T3_text_final.html