Name:_____ **Unit 1: Algebra Basics**

Hour:_____ **Date:**_____ **Quiz 1-3 Review**

Simplifying Expressions: Simplify by distributing and/or combining like terms.

1. 3 (2y - 7)

   6y - 21

2. - (x + 4)

   -x - 4

3. $\frac{2}{3}\left(\frac{1}{4}x-6\right)$

   $\frac{1}{6}x-4$

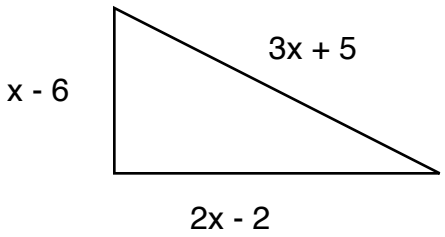
4. -4 (x + 8) - (x - 7)

   -5x - 25

5. $\frac{7}{8}\left(\frac{4}{5}x+16\right)+\frac{3}{5}\left(\frac{1}{2}x-10\right)$

   x + 8

6. Write the perimeter of the triangle as a simplified expression.



6x - 3

Translating Expressions, Equations, and Inequalities.

7. The product of a number and 7 — 7. **7x**

8. Nine subtracted from twice a number — 8. **2x - 9**

9. One less than the quotient of a number and -5 — 9. $\frac{n}{-5}-1$

10. The difference of twice a number and 3 is -21. — 10. **2n - 3 = -21**

11. Three times the sum of a number and 10 is 24. — 11. **3x + 10= 24**

12. One-third of a number is 8 less than the the number itself. 12. $\frac{1}{3}x = x - 8$

13. x is at most 6 13. **x ≤ 6**

14. You must be at least 18 years old to vote 14. **x ≥ 18**

Review:

Study the properties (Commutative, Associative, Distributive, Identity, Inverse, Transitive, Reflexive, Symmetric, and Zero Product)

Study the sets of numbers (Real, Irrational, Rational, Integers, Whole, Natural)

Math Minute:

1. | -15 |

15

2. $(-8)^2$

64

3. $(-2)^{-2}$

$\frac{1}{(-2)^2}$

4. $\frac{15}{20}$ = _____%

75%

5. $2\sqrt{16}$

8

6. $\frac{9^9}{9^5}$

9^4

7. $4^3 \square 4^4$

4^7

8. $5^2 = (-5)^2$ T or F

T

9. Write 23.6 X 10^2 in proper scientific notation.

2.36 x 10^3

10. Write 5,320 in scientific notation.

5.32 x **10^3**

11. Write 0.054 in scientific notation.

5.4 x 10^{-2}

12. 5.2 x 10^{-2} =_____

0.052

13. A negative times a negative equals a negative. T or F

F

14. (-4)(-5) =

20

15 -30 + 15 =

-15

16. $3\frac{1}{2}$ is an integer. T or F

F

17. $\frac{-}{+} = +$ T or F

F