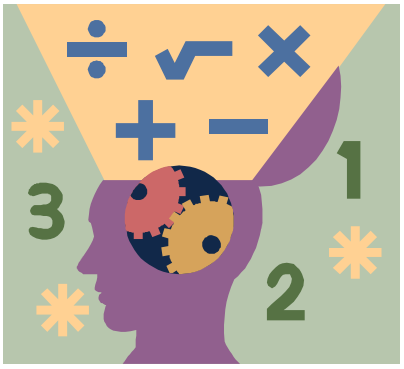
Math 8

Algebra Review



Name_____

Mrs. Faulks
Math 8

Math 8 Algebra Unit

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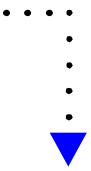
Rules of Integers



Addition Rules

Same Signs: _____

Different Signs: _____

Subtraction Rules

"_____,_____"

Follow the _____ rules.

Multiplication/Division Rules

Same Signs: _____

Different Signs: _____

Expressions and Equations

1. The difference between an expression and an equation is

_____

_____

_____

2. Example of an Expression:

_____

3. Example of an Equation:

_____

Solving One-Step Equations

Write an example for each type of equation and solve it.

One-Step Addition Equation:_____

Check:

One-Step Subtraction Equation:_____

Check:

One-Step Multiplication Equation:_____

Check:

One-Step Division Equation:_____

Check:

Solving Two-Step Equations

Write an example for each type of equation and solve it.

Two-Step Multiplication Equation:

Check:

Two-Step Division Equation:

Check:

Distributive Property

Write an example of the Distributive Property:

_____

What helps you remember the Distributive Property?

_____

_____

Variables on Both Sides

Write an example of an equation with variables on both sides and solve the equation.

Check:

Polynomials

What is a polynomial? _____

_____

Write an example of a polynomial using *x* and *y*. _____

Simplify the following polynomials:

2x + 3y + 5y - x _____

-8x + y - 5y - x _____

-x - 4y - 4y + x _____

2x - 2y + 2y - x _____

x - 8y + 9y - 3x _____

Multiplying Monomials

When multiplying by the same base, you need to _____ the exponents.
Example: _____

Solve the following:

1. $7^2 \times 7^3 =$ _____

2. $5x(2x^2) =$ _____

3. $-4x(-4x^3) =$ _____

4. $5(n - 8) =$ _____

5. $6x(x - 3) =$ _____

Multiplying Binomials

What is a binomial? _____

What does “FOIL” stand for?

_____

Solve the following:

$3x(x + 5) =$ _____

$-4x(2x + 7) =$

_____

$(x - 3)(x + 2) =$ _____

F	
O	
I	
L	

Exponents

Complete the following table:

Base and Exponent	Fraction	Decimal
10^{3}		
10^{2}		
10^{1}		
10^{0}		
10^{-1}		
10^{-2}		
10^{-3}		

Dividing Monomials

Rules:

1. If m > n, then

2. If m < n, then

3. If m = n, then

Examples:

1. $a^3 \div a^2 =$ _____

2. $a^2 \div a^3 =$ _____

3. $a^3 \div a^3 =$ _____

Factoring

Model: $x^2 - 5x + 6$
Answer: $(x - 3)(x - 2)$
Check: $(x - 3)(x - 2)$

F	x^2
O	$-2x$
I	$-3x$
L	6

Answer: $x^2 - 5x + 6$

Example:
Model: $x^2 - 6x + 8$
Answer:
Check:

F	
O	
I	
L	

Answer: _____

Inequalities

What do the following symbols stand for?

< stands for _____
> stands for _____
stands for _____
stands for _____

Write an algebraic inequality for the following:

1. A number decreased by 3 is less than or equal to 2.

2. When three is subtracted from a number, the result is at most 10.

3. The product of a number and –2 is greater than 10.

Vocabulary

Binomial_____

Coefficient_____

Equation_____

Exponent_____

Expression _____

Greatest Common Factor_____

Inequality_____

Integer _____

Monomial _____

Polynomial _____

Trinomial _____

Variable _____

Notes

Signatures

I studied for my Algebra Unit Test using this review book.

Student's Signature: _____

I witnessed my child studying for the Algebra Unit Test using this review book.

Parent's Signature: _____