The B-RELYT Organization, Inc.
Math Facts for Middle & High Schoolers
Week of 4/29/2020 - www.b-relyt.org

- **Introduction to Pre-Algebra**

Parents/Guardians: These bi-weekly worksheets are designed to begin to strengthen your child's foundation and understanding of Math. Please have your child read over the respective Math Level. Have them do one problem every other day at night before they go to bed. When they have completed all the problems:

- verbally quiz them on the respective important terms and
- verbally say and solve an example until the next B-RELYT post.

Important Terms:

Integers – whole numbers only , that can be negative or positive
Rational Numbers
Inequality Symbols - < is less than, > is greater than
Variables – a symbol, usually a letter from the alphabet that represent an unknown quantity (a-z)
Algebra – the branch of Math that involves variables and numbers that represent unknown quantities.
Algebraic Expression – must contain at least one of each:

- **a variable,**
- **a number and**
- **at least one operation.**

i.e. 5*n

Numerical Expression – one with only numbers and operations (+,-, * etc.

Adding and Subtracting Integers

Example

7 – (-15) = 7 +15 = 22

Two negatives as shown above is +15, Therefore To subtract -15, add 15

Practice Problems:

Directions: Evaluate the Algebraic Expressions is a = 9, b = -8 , and c = -2

1. **14 – b**
2. **$c - a^2$**
3. **-3 + b**
4. **-14+ a**

Multiplying and Dividing Integers

Example

-9(2) = -18 The factors have different signs; therefore, the product is negative

5. **6(-8)**
6. **-4(-3)**
7. $\frac{-30}{-15}$
8. **21 ÷ (-3)**

- **Algebra 1- Simplifying Algebraic Expressions**

Important Terms:

Distributive Property – u are distributing the math constant/variable to usually simplify and solve Algebraic Expression

Commutative Property- order does not matter. Multiplication and addition are commutative

Term- when addition or subtraction separate an algebraic expression into parts

Like Terms – contain the same variables to the same power. i.e. 8xy2 and -7xy2 are like terms

Constants – a number without any variables associated to it

Coefficients- the number in front of the variable i.e. 5n, 5 is the coefficient

Example 1

Use the Distributive Property to rewrite each expression

4(x+7)

4(x+7)=4(x)+4(7) **Distributing the 4 using the Distributive Property**

= 4x +28 **Commutative Property**

Example 2

6(p-5)

6(p-5) =6[p+(-5)]

=6(p) + 6(-5) Distributive Property

= 6p + (- 30) Simplify
= 6p -30 Subtraction

Identify the Terms, Coefficients, Like Terms, and Constants in the Following Problems

Example 3

6n-7n-4+n note the "n" has an invisible 1 in front of it

Terms:6n, -7n, -4, n
Coefficients:6,-7, 1
Like Terms: 6n,-7n, n
Constants: -4

Problems

4/30/2020 - 5/3/2020 (one a day before bedtime)
Use the **Distributive Property** to rewrite each expression

1. -8(a+1)
2. (p+7)(-2)
3. -4(n-3)
4. (6+z)3

Identify the **Terms, Like Terms, Coefficients** and **Constants** in each expression

5. 12c-c
6. 2+3d+d
7. -4h+1+4j+6

Simplify Each Expression

8. 6p -2r-13p+r
9. 7x-2-7x+6

10. 3y+y

- **Algebra II**

  Review and do all of the Pre-Algebra, and Algebra I above. And on May 10 - 12 watch the You Tube video for the Advanced Math Students once a day. Leave me comment on my IG :@b_relyt1 or @kimlinjohnsonunlocked on what you learned from this You Tube video on May 13, 2020.

<u>Advanced Math Students and/or Extra Credit:</u>

On You Tube

Search: First Class in First MIT Calculus

#yourwelcome #mymentorsharedthisvideowithme #Dr.B

NOTE:

- **B-RELYT does provide more details, when we are directly teaching students. However, this is being given to you as a tool to begin to strengthen your child's Math skills, while preparing them for the world.**
- **Please check-in and leave any comments or questions on the B-RELYT Facebook page or IG: @b_relyt1**
- **If your child finds his/her work too easy, by all means introduce the next grade level to them.**
- **These practice worksheets will be posted bi-weekly through May 31, 2020.**