Order of Operations and Solving Linear Equations

The Order of Operations:

One way to remember the order → “Please Excuse My Dear Aunt Sally” (P.E.M.D.A.S.)

- Parentheses (and other grouping symbols)—what are other grouping symbols?
- Exponents
- Multiplication & Division (left to right)
- Addition & Subtraction (left to right)

Term vs. Factor:

Terms are parts of an expression separated by + or – signs

Factors are parts of an expression being multiplied or divided

Inverse Operations:

These are operations that “undo” each other. It is very important to know how to use these properly when solving equations!

- Addition & Subtraction
- Multiplication & Division
- Exponents & Radicals (Roots)

Hints for Solving Equations:

- Liberate the variable (we’ll call her \( x \))! To do this, you must undo whatever is being done to \( x \) by using the inverse operations.

- Be fair! Whatever you do to one side of the equation, do to the other side as well.

- Share the wealth! If you multiply (or divide) each side of the equation by a number, multiply (or divide) each term by that number.

- There is strength in numbers! If there is more than one \( x \) in the equation, get all the \( x \)’s to one side.

For more help with your BCUSP 123 class, visit the Quantitative Skills Center in UW2-134!