**UNIT 2: POWER WORDS**

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| **Commutative property:**  *A real number property used to switch the order of the number s or variables when added or multiplied. The word commutative comes from commute which means move around* |  |
| **Associative Property:**  *A real number property used to group numbers or variables when added or multiplied. The word Associative comes from Associate which means group* | x(yz)=(xy)z |
| **Distributive property:**  *A real number property used to distribute Multiplication over addition to get rid of the parenthesis* |  |
| **Identity property:**  *A real number property used to preserve the value of the number or variable* | *Additive Identity*  Multiplicative Identity: x(1)= x |
| **Inverse Property**  *A real number property used to bring back a number or variable to 1 when multiplied or zero when added.* | Additive Inverse: 3+-3=0  Multiplicative inverse: |
| **Zero product property:**  *A real number property used to multiply a number or value by zero to equal zero* | 3 (0) = 0 x(0)= 0 |
| **Equation**  A mathematical statement with an equal sign |  |
| **Equivalent expressions**  Two expressions that equal each other |  |
| **Addition/ Subtraction property of equality**  adding the same value to both sides of an equation will not change the truth value of the equation | 2x = 4  2x +3 =4+3 |
| **Multiplicative property of equality**  multiplying the same value to both sides of an equation will not change the truth value of the equation | 2x = 4  (3) (2x) = (4) (3) |
| **Division property of equality**  multiplying the same value to both sides of an equation will not change the truth value of the equation | 2x = 4  (2x)/3 = (4)/3 |
| **Literal Equation:**  *An Equation that has more than 2 variables. It is used in formulas.* |  |
| **Consecutive integers:**  *Integers that follow each other in order* | 2, 3,4 ,5 |
| **Consecutive odd integers;**  Odd integers that follow each other in order | 1, 3, 5, 7 |
| **Consecutive Even integers:**  Even integers that follow each other in order | 2, 4, 6, 8 |
| **Inequality:**  A mathematical statement with one of the inequality sign |  |
| **Compound Inequality:**  Two inequalities connected together by or OR and |  |