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| **Basic Number Properties - Knowing these properties of numbers will improve your understanding and mastery of math.** |
| Number Properties, SymbolsThere are four basic properties of numbers: commutative, associative, distributive, and identity. You should be familiar with each of these. It is especially important to understand these properties once you reach advanced math such as algebra and calculus.  **Commutative Property**  a. **Addition**. When two numbers are added, the sum is the same regardless of the order in which the numbers are added.  3 + 5 = 8       or       5 + 3 = 8  b. **Multiplication**. When two numbers are multiplied together, the product is the same regardless of the order in which the numbers are multiplied.  3 x 5 = 15       or       5 x 3 = 15  **Associative Property**  a. **Addition**. When three or more numbers are added, the sum is the same regardless of the way in which the numbers are grouped.  6 + (4 + 3) = 13   or   (6 + 4) + 3 = 13  Number Properties, Guy at Chalkboardb. **Multiplication**. When three or more numbers are multiplied, the product is the same regardless of the way in which the numbers are grouped.  6 x (4 x 3) = 72   or   (6 x 4) x 3 = 72  **Distributive Property**  The sum of two numbers times a third number is equal to the sum of each addend times the third number.  5 x (7 + 2) = 45   or   5 x 7 + 5 x 2 = 45  **Identity Property**  a. **Addition**. The sum of any number and zero is that number.  12 + 0 = 12  b. **Multiplication**, The product of any number and one is that number.  18 x 1 = 18 |