Name : _____ Score : _____

Teacher : _____ Date : _____

## Identify the Properties of Mathematics

1 ) If you divide the same number to both sides of an equation, the equation is still true. For example if a = b, then a / c = b / c. _____

2 ) When two numbers are multiplied together, the product is the same regardless of the order of the multiplicands. For example a x b = b x a _____

3 ) When three or more numbers are added, the sum is the same regardless of the grouping of the addends. For example (a + b) + c = a + (b + c) _____

4 ) If you multiply the same number to both sides of an equation, the equation is still true. For example if a = b, then a x c = b x c. _____

5 ) If you subtract the same number from both sides of an equation, the equation is still true. For example if a = b, then a - c = b - c. _____

6 ) The equals sign in an equation is like a scale: both sides, left and right, must be the same in order for the scale to stay in balance and the equation to be true. _____

7 ) The additive inverse of a number, a is -a so that a + -a = 0. _____

8 ) If you add the same number to both sides of an equation, the equation is still true. For example if a = b, then a + c = b + c. _____

9 ) The product of any number and one is that number. For example a x 1 = a. _____

10 ) The multiplicative inverse of a number, a is $\frac{1}{a}$ so that a x $\frac{1}{a}$ = 1. _____

11 ) The sum of any number and zero is the original number. For example a + 0 = a. _____

12 ) When two numbers are added, the sum is the same regardless of the order of the addends. For example a + b = b + a _____

13 ) When three or more numbers are multiplied, the product is the same regardless of the order of the multiplicands. For example (a x b) x c = a x (b x c) _____

14 ) The sum of two numbers times a third number is equal to the sum of each addend times the third number. For example a x (b + c) = a x b + a x c _____

15 ) Adding 0 to any number leaves it unchanged. For example a + 0 = a. _____