Solving Equations Notes

**Inverse Operations:**

**Steps:**

1. Remove any ( ) by distributing
2. Isolate variables
3. Combine like terms
4. Divide/Multiply to remove coefficient of variable
5. CHECK!!!

\*\*Remember: Whatever is done to one side of an equation MUST be done to the other side!

**One-Step Examples:**

**Two-Step Examples:**

**Multi-Step Examples:**

**Special Cases:**

Sometimes when solving equations we don’t get simply one solution. We can get *no solution* or *multiple solutions*.

\*\*No Solution occurs when you are solving an equation and end up with a statement that IS NOT true (such as 3=4 or 0=-1)!!

\*\*Infinite Solutions (∞) occurs when you are solving an equation and end up with a statement that IS ALWAYS true (such as 2=2 or -3=-3)!!

**Examples:**

**Algebraic Proportions:**

1. Cross Multiply

\*\*All rules for solving still apply! ☺

1. Distribute
2. Combine Like Terms
3. Add or subtract to isolate variable
4. Multiply or divide to isolate variable

**Examples:**