How to Solve Equations

Terms

1. Terms are separated by + and - symbols
2. You can only combine terms with the same variables (letters)
3. A number in front of a variable is MULTIPLIED by the variable ($3g = 3 \times g$)

How to Combine Integers (positive and negative numbers)

1. Look at the symbols (+ and -) signs
2. If the symbols are the same = ADD
3. If the symbols are different = SUBTRACT
4. Always use the symbols of the LARGEST number

Order of Operations

1. P/B	Parentheses/Brackets	
2. E	Exponents	
3. M/D	Multiple/Divide	Left to Right
4. A/S	Add/Subtract	Left to Right

How to Solve Equations

1. **Combine like terms on the same side of the equation**
   a. Write boxes around the same terms
   b. Combine the same terms then cross out the boxes
   c. Repeat until you combined all the terms

$6m - 5 - 2m = 7 - 2m$

$4m - 5 = 7 - 2m$

2. **Find the largest variable and move the smaller variable to the same side**
   a. To move a term to the OPPOSITE side you must use the OPPOSITE operation
   b. Always do the SAME thing to both sides of the equation

$4m - 5 = 7 - 2m$

$+2m \quad +2m$

$6m - 5 = 7 + 0$

3. **Move the numbers to the OPPOSITE side of the variable**
   a. Remember to use the OPPOSITE operation to move to the OPPOSITE side

$6m - 5 = 7$

$+5 \quad +5$

$6m = 12$

3. **If the variable has a number in front of it you must DIVIDE to remove it**

$6m = 12$

$\div 6 \quad \div 6$

$m = 2$

4. **Substitute the value of the variable, if it is known**