## <u>Algebra</u>

- The same operation must be preformed on both sides of the equation.
- Constants and variables may be cancelled out by preforming the inverse operation.
  - Addition/Subtraction
  - Multiplication/Division
  - Exponent/Root
- Isolate variables by applying the reverse of the order of operations.

Brackets Exponents Division Multiplication Addition Subtraction

<u>Example</u>		
a) <i>E = mgh</i>		
<i>E</i> = 1000	<i>m</i> = 20	<i>g</i> = 10
Solve for <i>h</i>		

b) 
$$3y + 5x = 6z$$
  
 $y = 20$   $z = 5$   
Solve for x

c)  $\frac{1}{2}mv^2 = \frac{1}{2}kx^2$ Solve for *v*