

## Real World Connection

**Variable:** a quantity or condition that can change

**Independent Variable:** a variable that stands alone and isn't changed by other variables \*you can control it

**Dependent Variable:** a variable that can change and depends on other factors \*you cannot control it

Examples:

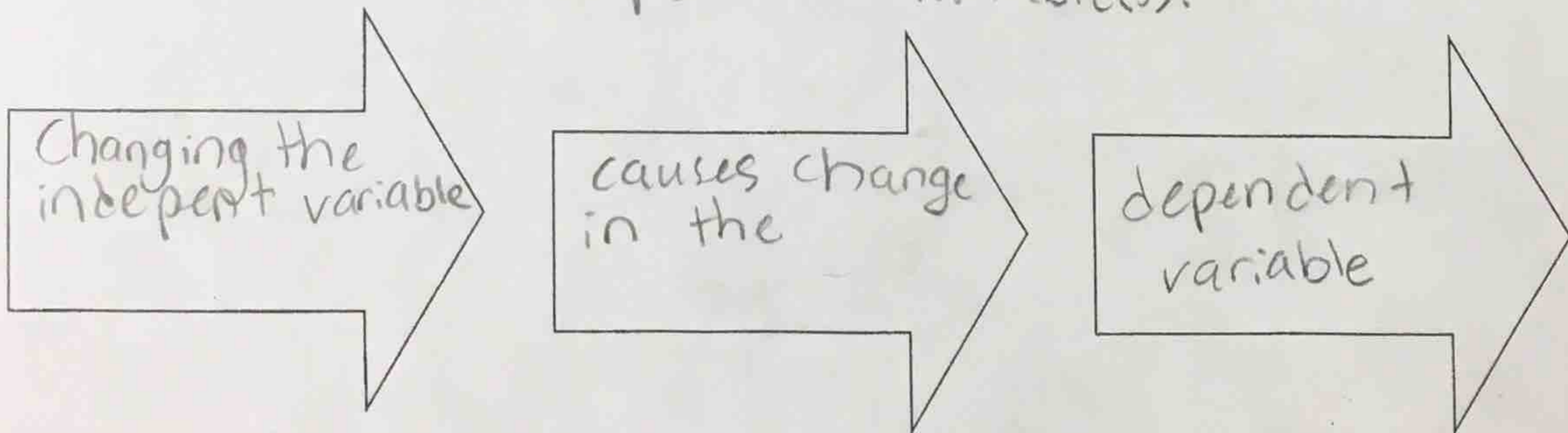
| Independent Variable                           | Dependent Variable                 |
|--|------------------------------------|
| • How fast you drive                           | • Time it takes to drive somewhere |
| • How many miles you went over the speed limit | • Cost of a speeding ticket        |
| • The hours you work                           | • How much money you earn          |
| • Number of cookies                            | • Total calories and fat           |
| • minutes used                                 | • Cell phone bill                  |
| • The # of assignments you turned in           | • Your math grade                  |

## Applying Real World to Math

**Variable:** a letter or symbol that represents a number

**Independent Variable:** Is a variable in an equation that may have its value freely chosen without considering values of any other variable

**Dependent Variable:** is a variable whose value depends on the values of one or more independent variable(s).



X is always the independent variable (Input)

Y is always the dependent variable (Output)

What you get out depends on what you put in