$\qquad$ Unit \#1: Data Analysis
Lesson \#5

EQ:

- Terms to Recall:
* New Terms:

Generally, statisticians use a $\qquad$ to represent a $\qquad$ and a
$\qquad$ letter, to represent one of its $\qquad$ .

For example,

probability that the is
equal to a particular value, denoted by $\qquad$ .

As an example, $\qquad$ refers to the $\qquad$ that the
$\qquad$ is equal to $\qquad$ .

* Consider flipping 2 coins. Possible outcomes $\qquad$
- Complete the table below, which associates each outcome with its probability.

Number of Heads Probability

Probability Distribution --- a $\qquad$ or an $\qquad$ that links each of a statistical experiment with the $\qquad$ of its $\qquad$
$\qquad$
will $\qquad$ .

## Requirements for a Probability Distribution:

1. 
2. 

Ex. Is the following a probability distribution? State a reason for your answer.

| $\boldsymbol{x}$ | $\boldsymbol{P}(\boldsymbol{X}=\boldsymbol{x})$ |
| :---: | :---: |
| 0 | 0.16 |
| 1 | 0.18 |
| 2 | 0.22 |
| 3 | 0.10 |
| 4 | 0.3 |
| 5 | 0.01 |

Ex. Is the following a probability distribution? State a reason for your answer.

## $P(X=x)$

0.16
0.18
0.22
0.10
0.3
0.04

Probability Histogram --- a histogram in which the $\qquad$ corresponds to the value of the $\qquad$ and the $\qquad$ represents the of that $\qquad$ of the random variable.



* Complete In Class Practice Problems
* Assignment: Practice Worksheet Probability Distributions

