**Experimental and Theoretical Probability Notes**

**Theoretical Probability:** What we *expect* to happen

**Example:** You toss a coin 120 times. How many times do you think you will land on heads?

Answer: 60 times because the probability of getting a heads is ½.

**Experimental Probability:** Probability is determined based on the results of an experiment

**Example:** You flip a coin 20 times. The results are shown below. Using the results, calculate the probability of landing on a heads.

|  |  |
| --- | --- |
| Outcomes | Frequency |
| Heads | 13 |
| Tails | 7 |

Answer: The experimental probability of landing on heads is $\frac{13 (heads)}{20 (total flips)}$ or .65 or 65%