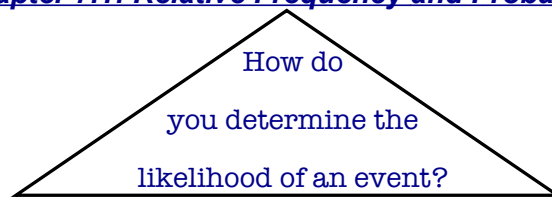




Chapter 7.1: Relative Frequency and Probability



Note: The term _____ should ONLY be used when referring to an event _____.



Relative Frequency

Consider the question:

How likely is it that a fair coin is flipped and it lands on heads?

One Approach: Run an Experiment

Flip a coin many times and count how _____ it lands on "heads" _____ to the total number of times the coin was flipped. The ratio of the number of times the coin lands on heads to the number of times the coin was flipped is the **relative frequency**.

Frequency refers to the _____ an event occurred.

Relative Frequency is the ratio of the _____ to the _____.



Example) A fair coin is flipped ten times. The results are pictured below.



The frequency of tails is _____.

The relative frequency for tails is _____.

Let's say we were going to make a bet about what the next coin flip would be. Based on the results above, what do you think is most likely to happen in the next coin flip? Why?



Example) Mrs. Schenkel shot 10 free throws and the results are recorded below with a check meaning she made the free throw and an x meaning she missed the free throw



The frequency of tails is _____.

The relative frequency for tails is _____.

Let's say we were going to make a bet about if Mrs. Schenkel would make or miss the next free throw. Based on the results above, what do you think is most likely to happen in the next shot? Why?



Probability

Consider the same question:

How likely is it that a fair coin is flipped and it lands on heads?

Assuming an evenly weighted coin, there are 2 equally likely outcomes, "tails" or "heads".

Probability is defined as the ratio of the

to the

Therefore, the probability that a coin flip lands on "heads" is...



Coin Flip Experiment

You will be rolling a 6 sided die to determine which team you will be on. A roll of 1,2, or 3 means you are on Team 1 and a roll of 4,5, or 6 means you are on Team 2. Keep it a SECRET! Do not tell anybody if you are on Team 1 or 2. Mrs. Schenkel will be guessing who is on Team 1 and 2 after reviewing your data in the next class.

Team 1: Real Flippers

Flip a fair coin 100 times. Record your results in the an excel spreadsheet or google sheet.

Team 2: Fake Flippers

Pretend to flip a fair coin 100 times. Record your results in the an excel spreadsheet or google sheet.



In Summary:



Classwork/Homework Assignment:

Problem Set 8.1