FST Name:

Notes 7.1 Date: Block:

***7.1: Relative Frequency and Probability***

|  |  |  |
| --- | --- | --- |
| How do you determine the likelihood of an event? | Events in the \_\_\_\_\_\_\_\_\_\_ | Events in the \_\_\_\_\_\_\_\_\_\_\_\_\_ |

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:** Flip a coin many times and count how \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ it lands on “heads” \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the total number of times the coin was flipped.

|  |  |  |
| --- | --- | --- |
| **Relative Frequency** |  | RF = |

* Frequency refers to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ an event occurs.
* 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 to happen in the next coin flip? Why?

**Practice)** Ms. 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 a made shot is \_\_\_\_\_\_\_\_\_

The relative frequency for a made shot is \_\_\_\_\_\_\_\_\_\_\_

Let’s say we were going to make a bet about if Ms. 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?

**Practice**.

1. You roll a dice 30 times with the results below. b) Do you think the dice is biased? Explain your answer.

a) Complete the relative frequency table. c) If you decide to roll the dice 600 times. Calculate

 an estimate of the number of times that the dice

would land on 4.