

Math 310 - Dr. Miller - Activity #16: Experimental Probability and Sample Spaces

This activity will: (1) illustrate how experimental probability is computed in the classroom, and (2) provide an example where experimental probability helps us recognize whether a sample space is uniform or not.

1. Experiment #1: This experiment consists of tossing two coins at once; below is a chart representing the sample space for this experiment. Perform the experiment a total of twenty times (20 trials) and record how many times each of outcome occurs. (Using tally marks is easiest.)

Two heads

Two tails

One head and one tail

What is the experimental probability of getting one head and one tail? Write your answer as a fraction first, then convert to a decimal, rounded to the nearest thousandth.

2. Experiment #2: This experiment consists of tossing THREE coins at once; again, we have a chart representing the experiment's sample space. Perform 20 trials of this experiment and record how many times each of outcome occurs. (Again, tally marks are easiest.)

Three heads

Three tails

Two heads and one tail

Two tails and one head

What is the experimental probability of getting three tails? Write your answer as a fraction first, then convert to a decimal, rounded to the nearest thousandth.