# MATH 108: Elementary Probability and Statistics
*Ramapo College of New Jersey*

Instructor: Dr. Atul Anurag

Semester: Fall 2025                                                    Due Date:

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## Homework Problem H0:

**(a) What is a census?**

**(b) Determine whether the underlined term in the following sentence is a parameter or a statistic:**

*"In a national survey of 1100 adult women the average height was 5 feet 4 inches."*

**(c) A bag contains some red, blue, and green marbles, but it is not known how many marbles of each color are in the bag. By experimentation, 100 drawings with replacement resulted in 22 red marbles. Find the probability of drawing a red marble from this bag.**

**(d) A bag contains 10 marbles. Two of them are red, three blue, five green. If a marble is drawn at random, find the probability that it will be red.**

**(e) To estimate the probability of getting a six on a certain weighted die, some experimentation is done (it is not known how the die is weighted). The die is rolled 50 times, resulting in 12 sixes. What is the probability of getting a six on a single roll of this die?**

**(f) What is the probability of getting a 6 on a single roll of a fair die?**