

Assignment 6

Q1. Coin flip

A coin is flipped 10 times. What is the probability of getting heads exactly 3 times? (6 digits after the decimal point)

Q2. Die roll

A six sided die is rolled 7 times. what is the probability of rolling at least 1 six? (6 digits after the decimal point)

Q3. Marbles

There are 50 red marbles and 50 blue marbles in a bag. Two marbles are taken out at random.

Q3.1. Same color replacement

What is the probability of both marbles being the same color if the draw is made with replacement?

Q3.2. Same color without replacement

What is the probability of both marbles being the same color if the draw is made without replacement?

Q3.3. Different color with replacement

What is the probability of the marbles being of different color if the draw is made with replacement?

Q3.4. Different color without replacement

What is the probability of the marbles being of different color if the draw is made without replacement?

Q4. Spoons and forks

There are 3 spoons and three forks in a drawer. Two utensils are drawn at random in order (without replacement). What is the probability of having the first one be a spoon if the second one is a spoon?