

Problem 1. A coin is flipped 5 times. What is the probability of getting 3 heads?

Problem 2. A bin contains 5 red balls, 7 blue balls, 9 white balls, and 11 green balls. Ten balls are drawn at random. What are the chances that all of the blue balls, and none of the red balls, are drawn?

Problem 3. Five cards are dealt from a shuffled deck and placed in a line. What is the likelihood that they are in consecutive increasing order?

Problem 4. A parking lot contains 10 spaces. Four cars park in the lot in random spaces. Find the probability that no two cars are adjacent.

Problem 5. Five cards are dealt from a shuffled deck. What are the chances that exactly three of them are from the same suit?

Problem 6. A coin is flipped eight times. We wish to compute the probability of obtaining at least five consecutive heads.

Problem 7. Twenty balls are thrown at random into five bins. What is the likelihood that every bin receives at least three balls?

Problem 8. (Challenge)

Twenty two presidential candidates were debating the number of angels that can dance on the head of a pin. Assuming that each randomly selected a number of angels between 0 and 100, what is the probability that two of them selected the same number?