

Go over in class.

Problem 1. A coin is flipped ten times.

(a) Count the number of possible outcomes (ordered with replacement).

(b) Find the probability that exactly half are heads.

Problem 2. Five cards are dealt from a shuffled deck and placed in a line, so the order matters.

(a) Count the number of possible outcomes (ordered without replacement).

(b) Find the probability of a straight flush (same suit in sequential rank order).

Problem 3. Three dice of different colors are rolled.

(a) Count the number of possible outcomes (ordered with replacement).

(b) Find the probability that all three dice have the same value.

(c) Find the probability that exactly one die has a six.