

Math 79, Probability Class Exercise 2

Instructor: Dr. Fred Park

1. A jar contains four marbles: one red, one green, one yellow, one white. If we draw two marbles from the jar one after the other without replacing the first one drawn, what is the probability of each of the events?
 - (a) A: One of the marbles is red
 - (b) B: The first marble is red or yellow
 - (c) C: The marbles are the same color
 - (d) D: The first marble is not white
 - (e) E: Neither marble is blue
 - (f) F: The first marble is white
2. Two twelve sided dice having the numbers 1-12 on their faces are rolled and the numbers facing up are added. Assume the dice are fair and find the probabilities for the listed events:
 - (a) The total is 5
 - (b) The total is a perfect square
 - (c) The total is a prime number
 - (d) The total is 11
 - (e) The total is a multiple of 7
 - (f) The total is even or 19
3. Timed exercise for a total of 20 mins. Follow steps below:
 - (a) Timed 10 mins: Create your own experiment. Then take two events from that experiment and calculate the probabilities of each of those events. On a separate sheet of paper, pose this as a problem without the answer.
 - (b) Timed 5 mins: Find a partner and switch your problem with theirs. Then in 5 mins time, try to solve the problem given to you.
 - (c) Timed 5 mins: Discuss both problems and solutions with your partner.