

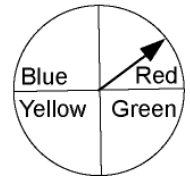
# Exam 2 Practice Problems

## Part IV – Probability

1. Find the uniform sample space for the following experiments:

(a) A spinner is marked equally with the colors blue, red, yellow and green as shown. The spinner is spun and the color noted (if the needle lands on the line, it is spun again) and a fair coin is tossed.

(b) A bag has 2 red and 3 green apples. A sample of two is chosen at random.



2. A cup contains the letters A, B, C and D. A single letter is drawn at random from the cup. What events are possible?

3. Let E and F be two mutually exclusive events. Suppose that  $P(E) = 0.5$  and  $P(F) = 0.2$ . Find  $P(E^c \cup F)$ .

4. A pair of fair six-sided dice (one red and one green) is rolled. What is the probability that the red die shows a 3 or the sum of the numbers shown is less than 5?

5. A group of students is surveyed and 55% of the group is men and 40% of the group like coffee. If 80% of the group are men or like coffee, find the probability that a woman likes coffee.

6. A buffet has slices of pepperoni pizza on it. The number of pieces of pepperoni on each slice is counted and the following results are found:

No. of pieces of pepperoni on a slice	3	4	5	6	7
No. of slices	1	4	9	6	2

What is the probability that a randomly selected slice of pizza will have more than 5 pieces of pepperoni?

8. Organize the following information into a probability distribution table:

The tomatoes in a large box of tomatoes are weighed and the following results are found: 10% of the tomatoes weigh less than 4 ounces, 30% of the tomatoes weigh 8 or fewer ounces and 15% of the tomatoes weigh more than 12 ounces.