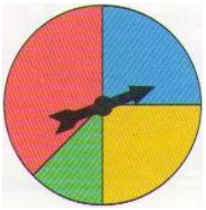
First name: _____ Last name: _____ Student ID: _____

Chapter 7 Statistics and Probability (2) Homework

1. Spin the spinner. Calculate each probability.



a. P(red) b. P(blue) c. P(blue or green)

a. P(yellow) e. P(white)

2. The probability of choosing a girl's name from the international club name list is 1/3. If the club has 36 members, how many of them are girls?

3. A coin is tossed three times. Find the probability of getting at least two heads.

4. A code consists of a two digit number chosen from 00 to 99, followed by two different letters of the alphabet. What is the probability the code is 12KY?

5. Billy and Mike are playing a game with a six-sided die and a coin. Each begins by rolling the die. One point is awarded for rolling an odd number. If an even number is rolled, the coin is flipped. If the coin turns up heads, two points are awarded. If tails come up, the person receives no points.
a. Use a tree diagram to display all possible results.

b. What is the probability of scoring 2 points?

c. What percentage of outcomes will result in at least 1 point?

6. The numbers 4, 9, 7, 6, 2, and 3 are written on scraps of paper and put in a jar. If you are to draw two numbers from the jar and place them in the order in which they are drawn, what is the probability that you will draw a prime number?

First number drawn	Second number drawn

7. A bag contains 5 red marbles, 4 green marbles and 1 blue marble. A marble is chosen at random from the bag and not replaced; then a second marble is chosen. What is the probability both marbles are green?

8. Two cards are drawn from the top of a well-shuffled deck. What is the probability that they are both Diamonds?

9. A bag contains 3 red marbles and 4 blue marbles. Two marbles are drawn at random without replacement. If the first marble drawn is red, what is the probability the second marble is blue?

10. A box contains 5 green pencils and 7 yellow pencils. Two pencils are chosen at random from the box without replacement. What is the probability they are different colors?

11. Match each term with its definition.

Word Banks				
Sample space	dependent events	tree diagram	event	probability
Independent events	outcome	theoretical probability	complementary event	

_____ 1. A way to record and count all combinations of events using lines to connect to parts of the outcome.

_____ 2. Two events where the probability of one is not affected by the probability of the other event.

_____ 3. Two events where the probability of one is affected by the probability of the other event.

_____ 4. A set of one or more outcomes in a probability experiment.

_____ 5. The set of outcomes in the sample space in which the event does not happen.

_____ 6. A result of an event or experiment.

_____ 7. All the possible outcomes in a probability experiment.

_____ 8. A number from 0 to 1 that shows how likely it is that an event will happen.

_____ 9. The ratio of the number of favourable outcomes to the number of possible equally likely outcomes.