Math 2 Unit 5 Review 1

Name:
Period:

1. Find the probability that the sum when you roll two six-sided dice is 5 *or* 10.

2. List the sample space when you toss a coin and then pick a marble from a bag with 1 red and 2 green marbles.

3. You draw one card from a standard deck of playing cards. What is the probability that the card is a diamond?

4. You roll two 6-sided dice. Find the probabilities:

   a. P (sum is 3)

   b. P (sum is at least 9)

5. There are several kittens in a box: 5 orange, 4 yellow, and 11 purple kittens. Find the probability that you select an orange kitten and then another orange kitten:

   a. When you replace the first kitten

   b. You do not replace the first kitten.

6. You draw two cards from a standard deck. What is the probability that both are Kings:

   a. With replacement

   b. Without replacement

7. Complete the marginal frequencies, then use the two-way table to determine the following probabilities:

		Pet	
		Yes	**No**
Job	**Yes**	74	13
	No	153	32

   a. What is the probability that pet owners have a job?

   b. What is the probability that all those surveyed have a job and own a pet?

   c. What is the probability that those with a job do not own a pet?

8. In a survey of 200 people, 112 people felt that we should be recycling more. Of those who want more recycling, 98 have children. Of those that do not feel that we should be recycling more, 59 do not have children.

a) Organize these results in a two-way table. Then **find** and **interpret** the marginal frequencies.

b) What is the probability that someone does not feel that we need to recycle more?

c) What is the probability that someone wants to recycle and has children?

d) What is the probability that someone wants to recycle given that they have children?

e) What is the probability that someone wants to recycle more or has children?

9. You draw one card from a standard deck. What is the probability that your card is a queen or a red card?

10. You roll one 6-sided dice. What is the probability that you roll a 2 or a number less than 5?

11. In a survey of 20 people, 7 people said they prefer apples, 8 said they prefer bananas, and 3 people like both fruits. What is the probability that a randomly selected student prefers apples or bananas?