Name _____ Date _____ Class _____

LESSON 7-3

Practice

Independent and Dependent Events

Find each probability.

1. A bag contains 5 red, 3 green, 4 blue, and 8 yellow marbles. Find the probability of randomly selecting a green marble, and then a yellow marble if the first marble is replaced. _____
2. A sock drawer contains 5 rolled-up pairs of each color of socks, white, green, and blue. What is the probability of randomly selecting a pair of blue socks, replacing it, and then randomly selecting a pair of white socks? _____

Two 1–6 number cubes are rolled—one is black and one is white.

3. The sum of the rolls is greater than or equal to 6 and the black cube shows a 3.
   a. Explain why the events are dependent.
   _____
   b. Find the probability. _____
4. The white cube shows an even number, and the sum is 8.
   a. Explain why the events are dependent.
   _____
   b. Find the probability. _____

The table below shows numbers of registered voters by age in the United States in 2004 based on the census. Find each probability in decimal form.

Age	Registered Voters (in thousands)	Not Registered to Vote (in thousands)
18–24	14,334	13,474
25–44	49,371	32,763
45–64	51,659	19,355
65 and over	26,706	8,033

5. A randomly selected person is registered to vote, given that the person is between the ages of 18 and 24. _____
6. A randomly selected person is between the ages of 45 and 64 and is not registered to vote. _____
7. A randomly selected person is registered to vote and is at least 65 years old. _____

A bag contains 12 blue cubes, 12 red cubes, and 20 green cubes. Determine whether the events are independent or dependent, and find each probability.

8. A green cube and then a blue cube are chosen at random with replacement. _____
9. Two blue cubes are chosen at random without replacement. _____