

# 13-5 Practice

## Probabilities of Independent and Dependent Events

Determine whether the events are *independent* or *dependent*. Then find the probability.

1. From a bag of 5 red and 6 green marbles, a red marble is drawn and not replaced. Then a green marble is drawn.

dependent,  $\frac{3}{11}$

2. In a game, you roll an odd number on a die and then spin a spinner with 6 evenly sized spaces numbered 1 to 6 and get an even number.

independent,  $\frac{1}{4}$

3. A card is randomly chosen from a standard deck of 52 cards then replaced, and a second card is then chosen. What is the probability that the first card is the ace of hearts and the second card is the ace of diamonds?

independent,  $\frac{1}{2704}$

Find each probability.

4. A die is tossed. If the number rolled is greater than 2, what is the probability that the number rolled is 3?

$\frac{1}{4}$

5. A black shoe is selected at random from a bin of 6 black shoes and 4 brown shoes and not replaced. What is the probability that a second shoe selected will be black?

$\frac{5}{9}$

6. A spinner with 12 evenly sized sections and numbered 1 to 12 is spun. What is the probability that the number spun is 12 given that the number is even?

$\frac{1}{6}$

7. **GAME** In a game, a spinner with 8 equally sized sections numbered 1 to 8 is spun and a die is tossed. What is the probability of landing on an odd number on the spinner and rolling an even number on the die?

$\frac{1}{4}$

8. **APPROVAL** A survey found that 8 out of 10 parents approved of the new principal's performance. If 4 parents' names are chosen, with replacement, what is the probability they all approve of the principal's performance?

$\frac{256}{625}$  or about 41%