

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.
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.
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?

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?
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?
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?
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?
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?