Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Probability of Independent Events**

1. Determine which of the following are examples of independent events.

a. Rolling a 5 on one die and rolling a 5 on a second die.

b. Choosing a cookie from the cookie jar and choosing a jack from a deck of cards.

c. Winning a hockey game and scoring a goal.

2. Determine which of the following are examples of independent events.

a. Choosing an 8 from a deck of cards, replacing it, and choosing a face card.

b. Going to the beach and bringing an umbrella.

c. Getting gasoline for your car and getting diesel fuel for your car.

3. A coin and a die are tossed. Calculate the probability of getting tails and a 5.

4. In Tania's homeroom class, 9% of the students were born in March and 40% of the students have a blood type of O+. What is the probability of a student chosen at random from Tania's homeroom class being born in March and having a blood type of O+?

5. If a baseball player gets a hit in 31% of his at-bats, what it the probability that the baseball player will get a hit in 5 at-bats in a row?

6. What is the probability of tossing 2 coins one after the other and getting 1 head and 1 tail?

7. 2 cards are chosen from a deck of cards. The first card is replaced before choosing the second card. What is the probability that they both will be clubs?

8. 2 cards are chosen from a deck of cards. The first card is replaced before choosing the second card. What is the probability that they both will be face cards?

9. If the probability of receiving at least 1 piece of mail on any particular day is 22%, what is the probability of not receiving any mail for 3 days in a row?

10. Johnathan is rolling 2 dice and needs to roll an 11 to win the game he is playing. What is the probability that Johnathan wins the game?