

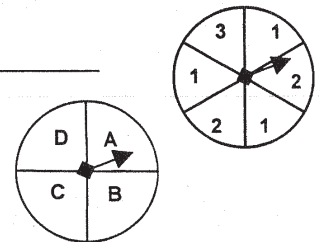
# **Probability with Compound Events (Independent and Dependent)** **Practice**

Describe the events by writing **I** for *independent event* or **D** for *dependent event*.

- Ann draws a colored toothpick from a jar. Without replacing it, she draws a second toothpick. \_\_\_\_\_
- John rolls a six on a number cube and then flips a coin that comes up heads. \_\_\_\_\_
- Susie draws a card from a deck of cards and replaces it. She then draws a second card. \_\_\_\_\_
- Seth draws a colored tile from a bag, replaces it; draws a second tile from the bag, replaces it; and then draws a tile a third time from the bag. \_\_\_\_\_
- You draw a red marble from a bag, and then another red marble (without replacing the first marble)? \_\_\_\_\_

Using the two spinners, find each **compound** probability.

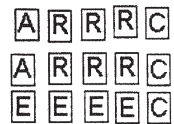
- $P(A \text{ and } 2)$  \_\_\_\_\_
- $P(D \text{ and } 1)$  \_\_\_\_\_
- $P(B \text{ and } 3)$  \_\_\_\_\_
- $P(A \text{ and not } 2)$  \_\_\_\_\_



A box contains 3 red marbles, 6 blue marbles, and 1 white marble. The marbles are selected at random, one at a time, and are **not replaced**. Find each **compound** probability.

- $P(\text{blue and red})$  \_\_\_\_\_
- $P(\text{blue and blue})$  \_\_\_\_\_
- $P(\text{red and white and blue})$  \_\_\_\_\_
- $P(\text{red and red and red})$  \_\_\_\_\_
- $P(\text{white and red and white})$  \_\_\_\_\_

Suppose that two tiles are drawn from the collection shown at the right. The first tile is replaced before the second is drawn. Find each **compound** probability.



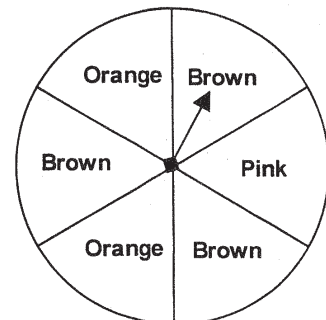
- $P(A \text{ and } A)$  \_\_\_\_\_
- $P(R \text{ and } C)$  \_\_\_\_\_
- $P(A \text{ and not } R)$  \_\_\_\_\_

Suppose that two tiles are drawn from the same collection shown above. The first tile is **not** replaced before the second is drawn. Find each **compound** probability.

- $P(A \text{ and } A)$  \_\_\_\_\_
- $P(R \text{ and } C)$  \_\_\_\_\_
- $P(A \text{ and not } R)$  \_\_\_\_\_

Use the spinner to the right for the next two problems.

- If you spin the spinner twice, what is the probability of spinning orange then brown? \_\_\_\_\_
- If you spin the spinner twice, what is the probability of spinning brown both times? \_\_\_\_\_



- Kevin had 6 nickels and 4 dimes in his pocket. If he took out one coin and then a second coin without replacing the first coin ---
  - what is the probability that both coins were nickels? \_\_\_\_\_
  - what is the probability that both coins were dimes? \_\_\_\_\_
  - what is the probability that the first coin was a nickel and the second a dime? \_\_\_\_\_