



► **Solve the problems.**

- 1 A bag contains 16 socks. One sock is chosen at random. The probability of selecting a black, white, or gray sock is 1. The probability of selecting a white sock is $\frac{3}{4}$. Selecting a gray sock is less likely than selecting a black sock. Which statements describe the situation? Select all the correct answers.
- A** There are 2 black socks. **B** There are 12 white socks.
- C** There is at most 1 gray sock. **D** It is impossible to select a red sock.
- E** It is likely that a black sock is selected.
- 2 Monica and Brianne each select one prize ticket at random from different boxes. Monica has a 20% chance of winning a prize. Brianne has a $\frac{1}{10}$ chance of winning a prize. Is Monica or Brianne more likely to win a prize? Explain your reasoning.

SOLUTION _____

- 3 Decide if the probability in each statement is described by the likelihood of the event occurring. Choose *True* or *False* for each statement.

	True	False
a. If the probability of an event is 0, then the event is certain.	<input type="radio"/>	<input type="radio"/>
b. If the probability of an event is $\frac{49}{100}$, then the event is likely.	<input type="radio"/>	<input type="radio"/>
c. If the probability of an event is $\frac{1}{6}$, then the event is very likely.	<input type="radio"/>	<input type="radio"/>
d. If the probability of an event is $\frac{15}{30}$, then the event is equally likely as not.	<input type="radio"/>	<input type="radio"/>

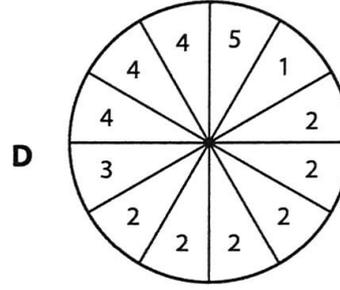
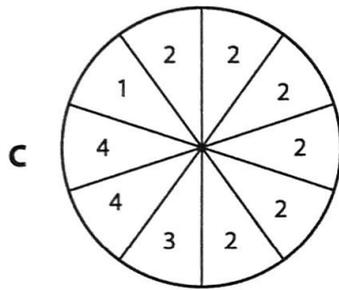
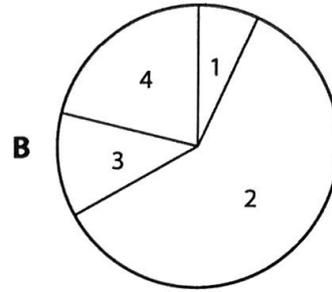
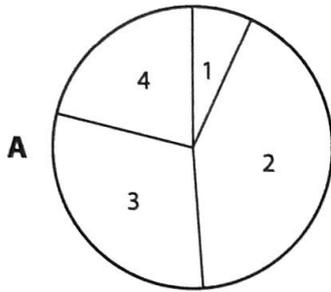


- 4 Select the spinner with the following characteristics:

The spinner is certain to land on 1, 2, 3, or 4.

The spinner is more likely to land on 2 than not.

The spinner is three times as likely to land on 4 than 1.



- 5 Marisela has 10 markers. There are 2 red markers and 2 blue. The rest are either black or green. When Marisela selects a marker at random, she is more likely to select a black marker than a green marker. What is the least number of black markers Marisela could have? Explain your reasoning.

SOLUTION _____

