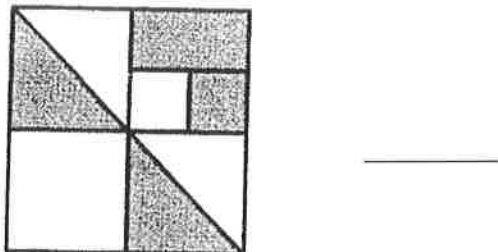
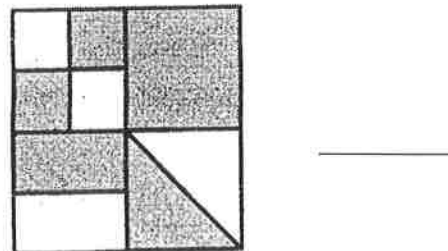


### 13.1c Using Probability to Predict

- 1) A stone is thrown onto the board below. What is the probability that the stone will land in the shaded area? Write your answer as a fraction in simplest form.



- 2) A stone is thrown onto the board below. What is the probability that the stone will land in the shaded area? Write your answer as a fraction in simplest form.



- 3) Suppose the theoretical probability of winning a prize at a carnival game is 22% of the customers. Based on the probability, how many customers would you expect to win a prize based on the table below.

Carnival Game Results	
Number of Customers	Number of Winners
600	?

Number of customers expected to win a prize: \_\_\_\_\_

- 4) Suppose the theoretical probability of winning a prize at a carnival game is 18% of the customers. Based on the probability, how many MORE customers would you expect to win a prize based on the table below.

Carnival Game Results	
Number of Customers	Number of Winners
250	39

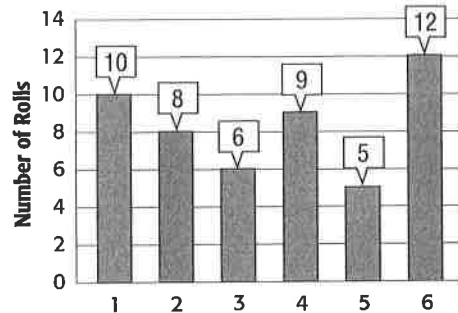
Expected this many MORE customers to win a prize: \_\_\_\_\_

**9-6**

**Practice: Skills**

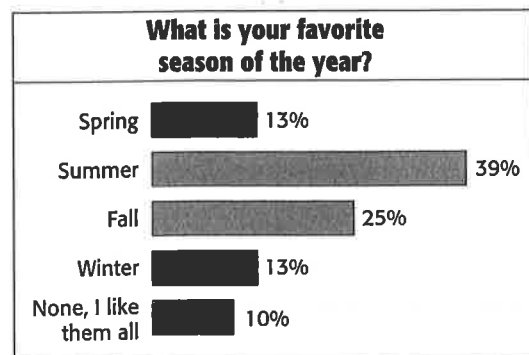
***Theoretical and Experimental Probability***

For Exercises 1–5, a number cube is rolled 50 times and the results are shown in the graph below.



- Find the experimental probability of rolling a 2.
- What is the theoretical probability of rolling a 2?
- Find the experimental probability of *not* rolling a 2.
- What is the theoretical probability of *not* rolling a 2?
- Find the experimental probability of rolling a 1.

For Exercises 6–9, use the results of the survey at the right.



- What is the probability that a person's favorite season is fall? Write the probability as a fraction.
- Out of 300 people, how many would you expect to say that fall is their favorite season?
- Out of 20 people, how many would you expect to say that they like all the seasons?
- Out of 650 people, how many more would you expect to say that they like summer than say that they like winter?