

8-5

Skills Practice

Experimental and Theoretical Probability

Independent Practice

Use the table that shows the results of rolling a number cube 50 times.

Result	Number of Times
1	6
2	10
3	8
4	7
5	10
6	9

- Based on the results, what is the probability of getting a five?
- Based on the results, how many fives would you expect to occur in 300 rolls?
- What is the theoretical probability of getting a five?
- Based on the theoretical probability, how many fives would you expect to occur in 300 rolls?
- Compare the theoretical probability to the experimental probability.

ARCHERY Use the following information.

In archery class, Jocelyn missed the target 5 times in 40 shots.

- What is the probability that her next shot will miss the target?
- In her next 160 shots, how many times would you expect Jocelyn to miss the target?

PETS For Exercises 8–11, use the results of a survey of 200 people shown at the right.

First Pet	Number
bird	32
cat	56
dog	66
rabbit	19
other	27

- What is the probability that a person says his or her first pet was a cat?
- Out of 500 people, how many would you expect to say a cat was his or her first pet?
- What is the probability that a person says his or her first pet was a bird?
- Out of 500 people, how many would you expect to say a bird was their first pet?
- FIGURE SKATING** At figure skating practice, Michelle successfully landed 15 out of 18 attempts at a double axel. What is the experimental probability that she will successfully land a double axel?