**Problem-Solving Practice**

***Theoretical and Experimental Probability***

**HOBBIES For Exercises 1–4, use the graph of a survey of 24 seventh-grade students asked to name their favorite hobby.**



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| **1.** What is the probability that a student’s favorite hobby is roller skating? | **2.** Suppose 200 seventh-grade students were surveyed. How many can be expected to say that roller skating is their favorite hobby? |
| **3.** Suppose 60 seventh-grade students were surveyed. How many can be expected to say that bike riding is their favorite hobby? | **4.** Suppose 150 seventh-grade students were surveyed. How many can be expected to say that playing sports is their favorite hobby? |

**WINTER ACTIVITIES For Exercises 5 and 6, use the graph of a survey with 104 responses in which respondents were asked about their favorite winter activities.**



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| **5.** What is the probability that someone’s favorite winter activity is building a snowman? Write the probability as a fraction. | **6.** If 500 people had responded, how many would have been expected to list sledding as their favorite winter activity? Round to the nearest whole person. |