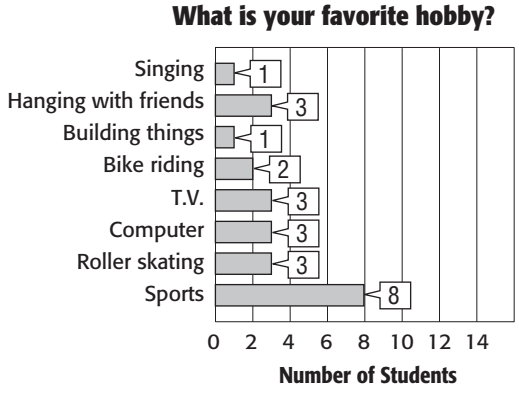
NAME _____ DATE _____ PERIOD _____

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.



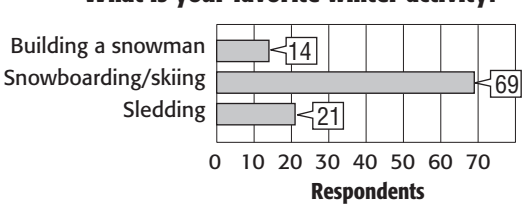
1. What is the probability that a student's favorite hobby is roller skating?
$\frac{1}{8}$

2. Suppose 200 seventh-grade students were surveyed. How many can be expected to say that roller skating is their favorite hobby? **25**

3. Suppose 60 seventh-grade students were surveyed. How many can be expected to say that bike riding is their favorite hobby? **5**

4. Suppose 150 seventh-grade students were surveyed. How many can be expected to say that playing sports is their favorite hobby? **50**

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.



5. What is the probability that someone's favorite winter activity is building a snowman? Write the probability as a fraction.
$\frac{7}{52}$

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. **101**