Name _____ Date _____ Class _____

CHAPTER 7

At-Home Practice

Collecting Data

For Exercises 1 and 2, explain whether it makes sense to use a sample.

1. Yasmin wants to determine the average height of the five members of her family.

_____

2. Ben wants to determine the average height of all the sixth- and seventh-graders in the Bay Area.

_____

3. Kathryn estimates that more than 400 of the 900 students in her school have at least one sibling. A random sample of 60 students shows that 26 of them have at least one sibling. Determine whether Kathryn's estimate is likely to be accurate.

_____

_____

Use the table for Exercise 4.

Student Attendance at Basketball Games

Sampling Method	Results of Survey
Joseph surveys 25 students in his first class.	30% attend basketball games.
Luke surveys 65 students by randomly choosing names from the school yearbook.	69% attend basketball games.

4. Which sampling method will better represent the entire population? Justify your answer.

_____

_____

Determine whether the sample may be biased. Explain.

5. Thirty people at the community park are surveyed to find out whether people in the town enjoy outdoor activities.

_____

Answers: 1. The population has only 5 members. The height of each member can be measured, so it does not make sense to use a sample. 2. The entire population is large. It makes sense to use a sample. 3. Based on the sample, you can predict that 390 students at Kathryn's school have at least one sibling. The estimate of 400 students is likely to be accurate. 4. Joseph uses a convenience sample. Luke's method produces results that better represent the entire student population because he uses a random sample. 5. The sample is biased. People at a park are likely to enjoy outdoor activities.

Name _____ Date _____ Class _____

CHAPTER 7

Family Fun

Graphing Good Times

Materials

2 number cubes
Math fact sheets
Pencil
Graph paper

Objective

Be the first to complete a row or a column in a math fact sheet. Players keep a tally of the number of times cubes are tossed in the game.

Directions

- Each player makes a math fact sheet at the beginning of each new game. (See below for an example of the math fact sheet.)
- One player tosses the number cubes. Keep a tally of the number of times the cubes are tossed.
- The two numbers on the cubes are factors. The player enters and shades the product in the correct square on the math fact sheet. Except when doubles are rolled, each product may be entered in one of two places on the sheet. (If a 6 and 4 are tossed, the square at the intersection of 6 across and 4 down or the square at 6 down and 4 across could be shaded.)
- If a player rolls a double and knows the product, that player can shade in the square and roll again.
- The first player to complete a row or a column is the winner.
- After 5 games are played, players can make a bar graph showing the number of throws per game.

Number of Throws Tally

Player	Game 1	Game 2	Game 3	Game 4	Game 5

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						

Player 1 ←

Player 2 →

	1	2	3	4	5	6
1						
2						
3						
4						
5						
6						