

Looking Ahead

In the following example, problem solving is used to determine the best way for the business owner to meet their objective.

Example Preview

Determine whether an observational or experimental study is appropriate to address the following statement.

A car wash operator wants to study whether customers are satisfied with the service they receive.

Solution

Since the car wash operator is merely observing data that already exists, the question would be answered through an observational study.

1.R.1 Exercises

Concept Check

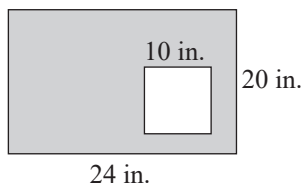
True/False. Determine whether each statement is true or false. If a statement is false, explain how it can be changed so the statement will be true. (**Note:** There may be more than one acceptable change.)

1. Averages are found by performing addition and then division.
2. The sum of 312 and 4 is 1248.
3. The word “quotient” indicates multiplication.
4. After reading a problem carefully, the next step might be to make a diagram or draw a figure.

Applications

Solve.

5. **Nutrition Facts:** Steven is calculating how many calories are in his lunch. He has a hamburger that has 354 calories, a medium fry that has 365 calories, and a chocolate milkshake that has 384 calories. How many total calories is his meal?
6. **Purchases:** For a class in statistics, Anthony bought a new graphing calculator for \$95, special graphing paper for \$8, a USB flash drive for \$10, a textbook for \$105, and a workbook for \$37. How much did he spend for this class?
7. **Area:** A square that is 10 inches on a side is placed inside a rectangle that has a width of 20 inches and a length of 24 inches. What is the area of the region inside the rectangle that surrounds the square? (Find the area of the shaded region in the figure.)



8. **Average Purchases:** The Lee family spent the following amounts for groceries: \$338 in June; \$307 in July; \$318 in August. What was the average amount they spent for groceries in these three months?

Writing & Thinking

9. Make up three word problems that include keywords to indicate operations such as addition, subtraction, multiplication, and division. Underline the keywords.

10. Give an example where you might use average (other than in a class).