

Name _____

Problem Solving: Reasonableness

After you solve a problem, check to see if your answer is reasonable. Also check that you answered the right question.

Example:

74 students are going to a special class dinner where they will be seated 8 to a table. Will 9 tables be enough?

Reasonableness

The answer is close to 9 tables.

$$74 \div 8 = 9 R2$$

Answering the right question

All students must have seats, so there must be one more table to hold the remaining 2 students, making 10 tables in all.

Tell whether each answer is reasonable.

1. Kendra wants to paste 500 photographs into an album, 6 photos to a page. She figures that she will need about 100 pages.

2. Hwong has 39 muffins. If each of his guests will eat 2 muffins, Hwong figures that he can serve muffins to 19 guests.

3. Ivan has a piece of lumber 104 inches long. He is sawing it into 12-inch lengths to make fence posts. He says he can get about 9 fence posts out of the board.

Problem Solving: Reasonableness

Solve.

- One tray holds eight sandwiches. If there are 30 sandwiches in all, how many trays are needed?

- There are 53 students on a field trip. One chaperone is needed for every 6 students. How many chaperones are needed?

Mrs. Favicchio has 72 students in her science class. The table shows how many students can use each item of lab supplies she is ordering.

Lab Supplies	
Item	Number of Students
Packet of pH paper	10
Case of test tubes	5
Case of petri dishes	4

- How many packets of pH paper does she need to order?

- How many cases of test tubes does she need to order?

- A loaf of banana bread serves 6 guests. There will be 47 guests attending the faculty breakfast. Which expression shows how many loaves are needed to serve them all?
 - 47 divided by 6 is 7 R 5, so 7 loaves are needed.
 - 47 divided by 6 is 7 R 5, so 8 loaves are needed.
 - 47 plus 6 is 53, so 53 loaves are needed.
 - 47 minus 6 is 41, so 41 loaves are needed.
- Writing To Explain** You are in line at an amusement park. You count 34 people in front of you. Each rollercoaster fits 11 people. How many rollercoasters must run before you can get on? Explain.

