

Homework & Practice 13-7

Precision

Another Look!

Mia has a length of string that is 2 meters long. She cuts it into 4 equal pieces. Is one of the pieces of string long enough to tie around the perimeter of a square box with a side length of 16 centimeters? Explain.

Tell how you can solve the problem with accuracy.

- I can correctly use the information given.
- I can calculate accurately.
- I can decide if my answer is clear and appropriate.
- I can use the correct units.

Attend to precision as you solve.

First, convert 2 meters to centimeters.

$$2 \times 100 = 200 \text{ centimeters}$$

Next, find the length of each piece Mia has after she cuts the string into 4 equal pieces.

$$200 \div 4 = 50 \text{ centimeters}$$

Then, find the perimeter of the square box.

$$P = 4 \times 16 = 64 \text{ centimeters}$$

The 50-centimeter piece is not long enough to go around the 64-centimeter perimeter of the box.

When you are **precise**, you use math symbols and language appropriately.



© MP.6 Be Precise

Susan bought a 1 kilogram bag of grapes. On the way home, she ate 125 grams of the grapes. How many grams of grapes does Susan have left? Use Exercises 1–3 to solve.

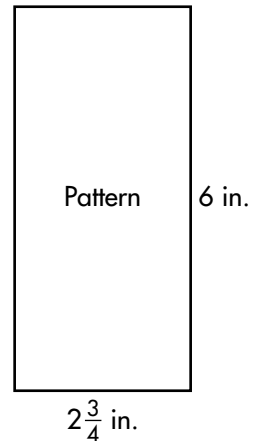
1. How can you use the information given to solve the problem?
2. How many grams of grapes does Susan have left? Show that you compute accurately.
3. Use math language and symbols to explain how you solved the problem.

Cell Phone Pouches

Lex wants to make phone bags like the one shown. The pattern shows the material he needs for each side of the bag. He needs to know how much material he will need to make each bag.



7 1/2 inches of string



4. **MP.1 Make Sense and Persevere** What do you know and what do you need to find?

5. **MP.4 Model with Math** What is the hidden question? Write an equation to show how to solve it.

6. **MP.1 Make Sense and Persevere** How much material does Lex need to make each bag?

7. **MP.6 Be Precise** Explain how you know what units to use for your answer.

8. **MP.2 Reasoning** What information was not needed to solve the problem?

When you are **precise**, you give carefully formulated explanations that are clear and appropriate.

