

Communicating about Multiplication Methods

GOAL

Explain your calculation method when solving a problem.

Jay is interested in conserving water. He read that a sprinkler sprays about 17 L of water in 1 min. He noticed his sprinkler was on for 22 min.



How much water did the sprinkler spray?



Jay's Solution

I asked Maya to help me improve my explanation. She asked these questions.

I think I should multiply 17 L by 22 min.

$$17 \times 22 = 200 + 140 + 20 + 14$$

$$17 \times 22 = 374$$

Why did you calculate instead of estimate?

Why did you multiply?

How did you get the four numbers you added?

Communication Checklist

- ✓ Did you explain your thinking?
- ✓ Did you show all the steps?
- ✓ Did you use math language?

- A. Use Maya's questions and the Communication Checklist to improve Jay's solution.

Reflecting

- B. Why is it important to communicate clearly when you solve a math problem?

Checking

1. Using a diagram can help you communicate more clearly. How can you use a diagram to improve Jay's solution?

Practising

For Questions 2 to 4, decide whether you should estimate or calculate. Then solve each problem. Show your thinking as completely as possible.

2. How many months old will you be on your 14th birthday?
3. A full tour bus holds 48 passengers. There are 15 tour buses that take visitors to the Royal Tyrrell Museum in Drumheller. Will these tour buses be able to take 600 visitors?



4. Sebastian can walk 47 cm in two steps. How far can he walk in 50 steps?
5. Create a two-digit multiplication problem and then solve it. Explain your strategy. Are there other strategies that would also work?