## **Break-Ground:**

## Meaning of multiplication

A dialogue where students discuss multiplication.

Check out this dialogue between two calculus students (based on a true story):

Devyn: Hey Riley, I was reading about the history of mathematics.

Riley: Really? Tell me about it!

Devyn: Apparently, back in the day, mathematicians worried about writing

things like:

 $3 \times 4 + 5$ 

Riley: Why? What's the matter here?

**Devyn:** Well, they thought of  $3 \times 4$  as an **area**. But 5 was thought of as a **length**. Apparently they worried whether it made sense to add "areas"

and "lengths."

Riley: Hmmm. We don't seem to worry about that now. I wonder why?

**Problem 1** What are some ways to interpret  $3 \times 4$ ?

Free Response: Answer will vary.

Learning outcomes: