

## **Lesson 8: Multiply 2 Two-digit Numbers**

• Let's multiply 2 two-digit numbers.

## Warm-up: Number Talk: Extra Groups

Find the value of each expression mentally.

- 20 × 60
- 21 × 60
- 20 × 62
- 19 × 60

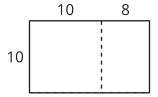


## 8.1: Two by Two

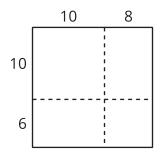
1. For each diagram, write a multiplication expression that the diagram can represent. Then, find the value of the expression. Use equations to show or explain your reasoning.

6 8

a.



b.



c.

- 2. How are the diagrams alike? How are they different? Discuss with your partner.
- 3. Use a diagram to find each product.

a. 
$$13 \times 21$$

b. 
$$25 \times 46$$



## 8.2: Decompose by Place Value

These diagrams could be used to find the value of  $49 \times 57$ .

Diagram A

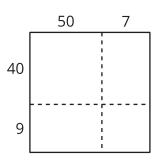
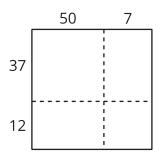


Diagram B



1. Which diagram is more helpful when finding the value of  $49 \times 57$ ? Why?

2. Use a diagram to find each product.

a. 
$$49 \times 57$$

b. 
$$29 \times 55$$