Unit 4, Lesson 6

Standard Algorithm: Multi-digit Numbers, with Composing

Let's multiply with the standard algorithm and compose new units.

Warm-up

Number Talk: Three Factors

Find the value of each product mentally.

- $(2 \times 3) \times 10$
- $(2 \times 40) \times 10$
- $(2 \times 200) \times 10$
- $(2 \times 243) \times 10$

Activity 1

Compose a New Unit

1. Find the value of 241×23.

2. Lin uses the standard algorithm to find the value of 241×23.

$$\begin{array}{r} {\scriptstyle 1} \\ 241 \\ \times\ 23 \\ \hline {\scriptstyle 1} \\ 723 \\ +\ 4,820 \\ \hline 5,543 \end{array}$$

   a. Where do you see 241×3 in Lin's work?

   b. Where do you see 241×20 in Lin's work?

   c. What does the 1 above 241 represent in Lin's calculation?

3. Use the standard algorithm to find the value of 182×41.

4. Use the standard algorithm to find the value of 304×23.

Activity 2

All the Products

Find the value of each product, using the standard algorithm.

647×9

647×50

647×59

264×38