



# Standard Algorithm: One-digit and Multi-digit Numbers, with Composing

Let's use the standard algorithm to multiply multi-digit numbers by one-digit numbers.

## Warm-up

### Number Talk: Partial Product

Find the value of each product mentally.

- $3 \times 3$
- $3 \times 20$
- $3 \times 600$
- $3 \times 623$

## Activity 1

### Compose with the Standard Algorithm

Han calculates  $318 \times 3$ , using partial products.

$$\begin{array}{r} 3 \ 1 \ 8 \\ \times \ \ \ \ 3 \\ \hline 2 \ 4 \\ 3 \ 0 \\ + 9 \ 0 \ 0 \\ \hline 9 \ 5 \ 4 \end{array}$$

Elena calculates  $318 \times 3$ , using the **standard algorithm**.

$$\begin{array}{r} 2 \\ 3 \ 1 \ 8 \\ \times \ \ \ \ 3 \\ \hline 9 \ 5 \ 4 \end{array}$$

1. What does the 2 in Elena's calculation represent? Explain or show your reasoning.
2. What does the 5 in Elena's solution represent? Explain or show your reasoning.

## Activity 2

### Use the Standard Algorithm

Calculate each product, using Elena’s strategy.

1.  $3,615 \times 4$

2.  $16,023 \times 3$



3.  $27,326 \times 3$

4.  $10,215 \times 6$