



# Build Multiplication Fluency

Let's multiply multi-digit whole numbers, using the standard algorithm.

## Warm-up

### Notice and Wonder: Same Solution

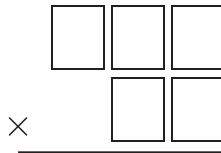
What do you notice? What do you wonder?

$$\begin{array}{r}
 \phantom{0}1 \\
 \phantom{0}1 \phantom{0}5 \\
 4 \phantom{0}1 \phantom{0}7 \\
 \times \phantom{0}2 \phantom{0}8 \\
 \hline
 3, \phantom{0}3 \phantom{0}3 \phantom{0}6 \\
 + \phantom{0}8, \phantom{0}3 \phantom{0}4 \phantom{0}0 \\
 \hline
 1 \phantom{0}1, \phantom{0}6 \phantom{0}7 \phantom{0}6
 \end{array}$$

$$\begin{array}{r}
 \phantom{0}3 \\
 \phantom{0}5 \\
 \phantom{0}2 \phantom{0}8 \\
 \times 4 \phantom{0}1 \phantom{0}7 \\
 \hline
 \phantom{0}1 \\
 1 \phantom{0}9 \phantom{0}6 \\
 2 \phantom{0}8 \phantom{0}0 \\
 + 1 \phantom{0}1, \phantom{0}2 \phantom{0}0 \phantom{0}0 \\
 \hline
 1 \phantom{0}1, \phantom{0}6 \phantom{0}7 \phantom{0}6
 \end{array}$$

## Activity 1

### Greatest Product



Directions:

- Each partner uses their own handout.
- Partner A: Choose a number card. Write the number in one of the blanks for Round 1.
- Partner B: Choose a number card. Write the number in one of the blanks for Round 1.
- Repeat until each partner has a three-digit-number-by-two-digit-number multiplication problem.
- Find the product.
- The partner with the greater product wins a point.
- The partner with more points after 5 rounds wins the game.

## Activity 2

### Targeted Products

1. Use the digits 3, 5, 6, 8, and 9 to make a product with a value that is close to 50,000.

$$\begin{array}{r} \square \square \square \\ \times \quad \square \square \\ \hline \end{array}$$

2. Use the digits 3, 5, 6, 8, and 9 to make a product with a value that is close to 20,000.

$$\begin{array}{r} \square \square \square \\ \times \quad \square \square \\ \hline \end{array}$$