



# Find the Greatest Product

Let's look for patterns when we multiply multi-digit numbers.

## Warm-up

### Notice and Wonder: Digits

What do you notice? What do you wonder?

$$\begin{array}{r} 841 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 641 \\ \times \quad 8 \\ \hline \end{array}$$

Activity 1

Talk about It

1. Consider the statement below. Decide whether you agree, disagree, or are unsure.

|   | agree | disagree | unsure |
|---|-------|----------|--------|
| Round 1: The greatest product using the digits 7, 5, and 2 is $75 \times 2$ because 75 is the greatest number you can make. |       |          |        |
| Round 2: The greatest product using the digits 7, 5, and 2 is $75 \times 2$ because 75 is the greatest number you can make. |       |          |        |

Write about something new that you learned from your group or something you still wonder about:

2. Use the digits 6, 3, and 1 to make the greatest product. (Use each digit only once.) Explain your reasoning.



## Activity 2

### More Digits

1. Use the digits 7, 3, 2, and 5 to make the greatest product. Use each digit only once.

2. Explain your reasoning.

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