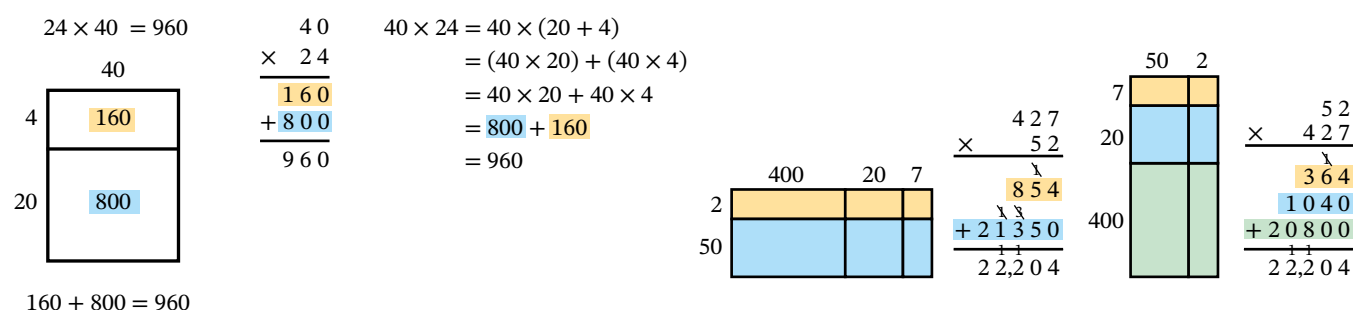# FAMILY MATH
Multiplication of Whole Numbers

Dear Family,

Your student is learning to multiply whole numbers more efficiently. They use models and methods from earlier grades such as area models, break apart and distribute, partial products, and the standard algorithm. Your student multiplies multi-digit numbers and makes connections between different strategies. These connections support their work using the standard algorithm to multiply larger numbers.

Different methods can be used to solve the same multiplication problem. In each method factors are decomposed, each part is multiplied, and the partial products are added to find the total.

The number of rows in the area model is the same as the number of partial products in the standard algorithm.

At-Home Activity

How Many Hours Away?

Help your student use multiplication to calculate the number of hours until a fun event. Ask your student to think of an event they are looking forward to such as their birthday, a holiday, a vacation, or a family gathering. Encourage them to choose something that is at least 1 month away. Figure out how many days there are until the event and multiply that number by the number of hours in a day, as in the following example.

- There are 43 days until a family reunion.
- Multiply the number of days until the event by the number of hours in a day: $43 \times 24 = 1{,}032$.
- Next, add on any remaining hours left today to find the total number of hours until the event. For example, if it is 5:00 p.m., there are 7 more hours left in the day. Find $1{,}032 + 7$ to determine there are $1{,}039$ hours until the family reunion.

For an additional challenge, have your student find the number of minutes until the event.

- Multiply the number of hours until the event by the number of minutes in an hour: $1{,}039 \times 60 = 62{,}340$. There are $62{,}340$ minutes until the family reunion.