Name _____

Fluently Multiply Multi-Digit Whole Numbers

Topic 3 Standards

5.NBT.A.2, 5.NBT.B.5

See the front of the Student's Edition for complete standards.

Dear Family,

   Your student is learning to fluently multiply multi-digit whole numbers using the standard algorithm. He or she will learn to explain patterns in the number of zeroes of the product when multiplying a number by powers of 10. Your student will also apply his or her understanding of place value to estimate products.

   This topic also uses money as a real-world context to connect mathematics to problems arising in everyday life.

   Here are two activities you can complete with your student to help him or her review multiplication and learn about estimating products.

Reviewing Basic Facts

Step 1 Review basic multiplication facts.

Step 2 Display

$$\begin{array}{r} 142 \\ \times\ 63 \\ \hline \end{array}$$

Have your student explain how to multiply a three-digit number by a two-digit number.

About How Much?

Materials: 1 number cube (labeled 1-6)

Step 1 Have your student create one 3-digit number and one 2-digit number by rolling the number cube five times.

Step 2 Have your student write a multiplication problem using the numbers from Step 1.

Step 3 Have your student estimate the product using rounding or compatible numbers. For example, 136×32 is close to 140×30, and $140 \times 30 = 4{,}200$. Take turns creating new problems by using the number cube to create more 2- and 3-digit numbers.

Observe Your Child

Focus on Mathematical Practice 3
Construct viable arguments and critique the reasoning of others.

Help your child become proficient with Mathematical Practice 3. Have your student explain how they know each estimate is reasonable.