Learning Multiplication Combinations (page 1 of 2)

Dear Family,

To develop good computation strategies, students need to become fluent with multiplication combinations from 1×1 to 12×12, often known as *multiplication facts* or *multiplication tables*.

Students are expected to know all combinations up to 12×12 by the end of Grade 4. Students began this work in Grade 3 by learning multiplication combinations with products up to 50.

The sheer number of multiplication combinations to learn can seem overwhelming, and many adults remember the task of "memorizing the facts." This year, the students are learning *categories* of related combinations to help with the task. They also learn to recognize that problems such as 8×3 and 3×8 have the same product. Encourage your child to "turn around" a multiplication combination if that makes the problem easier to solve. (For example, a student may find it easier to remember the product of 3×8 than that of 8×3.)

In our class, students are sorting a set of Multiplication Cards into "Combinations I Know" and "Combinations I Am Working On." On their cards, they write "clues" to help them learn the combinations that are difficult for them. Students use a combination they know that is close to the combination they are solving, and then they adjust to find the product. Here are some examples:

9×8
8×9
Start with $\underline{10 \times 8}$ $9 \times 8 = (10 \times 8) - 8$

6×7
7×6
Start with $\underline{6 \times 5}$ $6 \times 7 = (6 \times 5) + (6 \times 2)$

(continued)

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4×8
8×4
Start with _2 × 8_

$4 \times 8 = (2 \times 8) + (2 \times 8)$

As they practice using the clues, students gradually come to know the combinations that are difficult for them.

To help your child learn the multiplication combinations, you may do the following:

- Ask your child which multiplication combinations he or she is learning.

- Find out what clues your child has chosen to help learn these combinations.

- Choose two or three of the combinations at a time to practice with your child.