

Number Sense: Multiplying by 1-Digit Numbers

Dear Family,

Your child is learning methods to multiply two- and three-digit numbers by one-digit numbers. By looking for patterns in multiplication facts, he or she can also multiply multiples of 10 by one-digit numbers using mental math. Here are some sample patterns that your child is learning:

$$4 \times 5 = 20$$

$$6 \times 8 = 48$$

$$4 \times 50 = 200$$

$$60 \times 8 = 480$$

$$4 \times 500 = 2,000$$

$$600 \times 8 = 4,800$$

These patterns also help your child estimate products. For example, to estimate 4×32 , round 32 to the nearest ten (30) and then multiply using mental math ($4 \times 30 = 120$). To find the product of 4×32 , make an array.



Break apart 32 into 30 and 2. Think of 4×32 as $(4 \times 30) + (4 \times 2)$. So, $120 + 8 = 128$.

Your child can compare the product to the estimate to see if an answer is reasonable. You can help your child learn these skills by doing the following activity together.

Multiplying Greater Numbers

Step 1 Give your child a two-digit by one-digit multiplication problem, such as 5×49 .

Step 2 Ask your child to estimate the product and then solve. He or she can draw an array to find the product.

Step 3 Ask if the answer is reasonable, and have your child explain his or her reasoning.