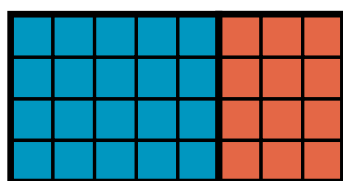


FAMILY MATH

Application of Multiplication and Division Concepts

Dear Family,

Your student is using the familiar break apart and distribute strategy to solve more challenging problems, including two-step word problems. They explore different ways of breaking apart problems into smaller or familiar parts. These parts can be simpler to work with and result in the same answer. In multiplication, breaking apart a factor into smaller parts to make simpler problems uses the associative and distributive properties. However, your student does not name these properties until grade 4. Instead, they use arrays and write equations to describe the strategies.



$$32 \div 4 = 5 + 3 = 8$$

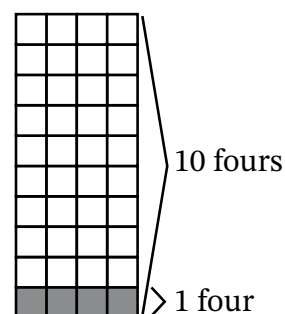
$\wedge$
 20 12

$$8 \times 5 = 40$$



$$4 \times 5$$

$$4 \times 5$$



$$\begin{aligned}
 9 \text{ fours} &= 10 \text{ fours} - 1 \text{ four} \\
 9 \times 4 &= (10 \times 4) - (1 \times 4) \\
 9 \times 4 &= 40 - 4 \\
 9 \times 4 &= 36
 \end{aligned}$$

At-Home Activities

Fact Fluency Hide-and-Seek

Hide known multiplication and division problems around your home using the factors 2, 3, 4, 5, and 10.

- Write multiplication and division problems on brightly colored paper. Examples of problems you could write for your student are $2 \times 4 = \underline{\quad}$, $16 \div 2 = \underline{\quad}$, $5 \times \underline{\quad} = 20$, or $\underline{\quad} \times 3 = 15$.
- Hide the facts in common places where your student can find them such as inside a cupboard or on the back of a door. Have your student solve each problem. Encourage your student to use a strategy, such as break apart and distribute, to solve more challenging problems.
- Consider asking your student to write similar problems for you to solve. Ask your student to check your work.

Problem Solving

- Look for opportunities to show how multiplying and dividing is used in daily life.
- “I am making our lunches for the week. I have 15 carrot sticks and I want to put 3 in each lunch. How many lunches can I make? What if I add 6 more carrot sticks?”
- “You get 32 pieces of candy at the Fall Carnival, but you are only allowed to eat 4 pieces each day. How many days will it take to eat all the candy?”