FAMILY MATH

Two Interpretations of Division

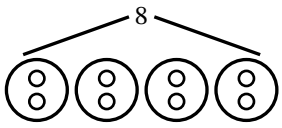
Dear Family,

Your student continues to deepen their understanding of equal groups. They relate finding an unknown factor in multiplication to finding the quotient, the answer in a division problem. Drawing equal groups and arrays helps to represent the situation when finding either the size of each group or the number of groups. Tape diagrams can also help to identify what is known and what is unknown.

Key Term

quotient

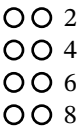
Eva puts flowers into vases.
She has 8 flowers.
She puts 2 flowers in each vase.
How many vases have flowers?



$8 \div 2 = \boxed{4}$

4 vases have flowers.

equal groups model



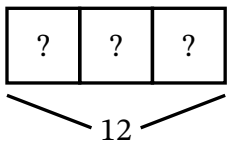
$\boxed{4} \times 2 = 8$

4 vases have flowers.

array model

The unknown in both equations is the number of groups.

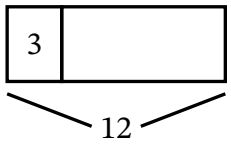
12 apples are placed equally into 3 bags.
How many apples are in each bag?



$12 \div 3 =$ _____

This tape diagram shows that the total and number of groups are known, but the size of each group is unknown.

12 apples are placed equally into bags.
There are 3 apples in each bag.
How many bags of apples are there?



$3 \times$ _____ $= 12$

This tape diagram shows that the total and the size of each group are known, but the number of groups is unknown.

At-Home Activity

Two Types of Everyday Division

Look for opportunities to discuss different types of division in everyday life.

- Count the total number of socks in a drawer and ask your student how many pairs there are when there are 2 socks in each pair. Discuss why 2 is the size of the group in this situation.
- Select 9 shirts. Ask your student how many should go in each pile if you want to make 3 equal piles. Discuss why 3 is the number of groups in this situation.

Ask your student, "What equation can help you solve the problem?" For example, if there are 8 socks total and 2 socks in each pair, the division equation is $8 \div 2 =$ _____ and the unknown factor equation is _____ $\times 2 = 8$.