

## KEY CONCEPT OVERVIEW

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Lessons 11 through 13 focus on solving the two different types of division word problems using **tape diagrams**. In one type of problem, students have to determine the size of the group. In the other type, they need to determine the number of groups.

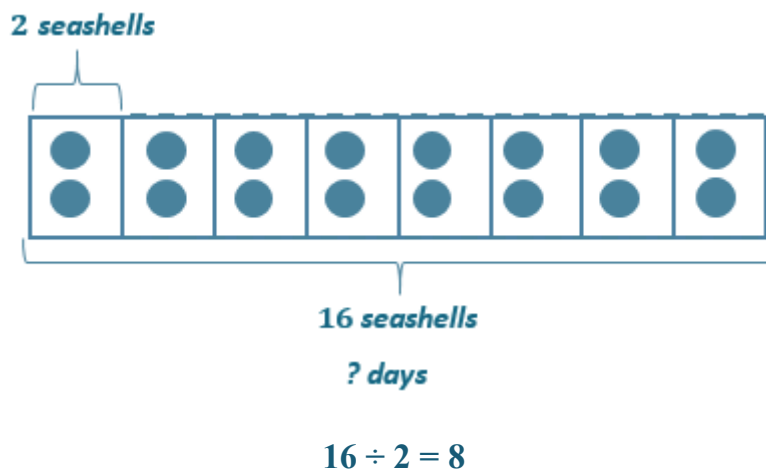
You can expect to see homework that asks your child to do the following:

- Draw arrays and organize them into tape diagrams, labeling all parts.
- Write related multiplication and division equations, such as  $4 \times 3 = 12$  and  $12 \div 4 = 3$  or  $12 \div 3 = 4$  (depending on whether the group size or the number of groups is unknown).
- Solve word problems involving the two different types of division problems.

## SAMPLE PROBLEM *(From Lesson 12)*

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Ava finds 2 seashells each day for her collection. How many days will it take Ava to find 16 seashells for her collection?



***It will take Ava 8 days to find 16 seashells.***

LEARN MORE by viewing a video about modeling with tape diagrams. Visit [eurmath.link/tape-diagrams](http://eurmath.link/tape-diagrams).

Additional sample problems with detailed answer steps are found in the *Eureka Math Homework Helpers* books. Learn more at [GreatMinds.org](http://GreatMinds.org).

**HOW YOU CAN HELP AT HOME**

- Practice multiplication with an unknown number while on the go. Take turns answering multiplication questions with a factor of 2 or 3. For example, “2 times what number equals 12?” (6) and “3 times what number equals 24?” (8)
- Encourage your child to divide with tokens of any kind, such as pennies. Give your child, for example, 24 pennies. Then ask her to, “Divide your 24 pennies into 3 equal groups. How many pennies do you have in each group?” (8) “Now divide your 24 pennies in groups of 3. How many equal groups of pennies do you have?” (8)

In both scenarios, the answer is 8 (8 in each group when you have 3 groups and 8 groups when you have 3 in each group). This type of practice will help your child see the difference between representing the unknown group size versus representing the unknown number of groups.

Note: You can continue the sequence by replacing the 3 in the questions with 2, 4, 6, or 8.

**MODELS**

**Tape Diagram:** A model that shows part-whole relationships to assist with problem-solving.

