5.NF.6 Solving Problems Involving Fractions

I can use multiplication to solve real world problems involving fractions.
I can use strategies successfully, including visual fraction models or equations, to represent the problem.

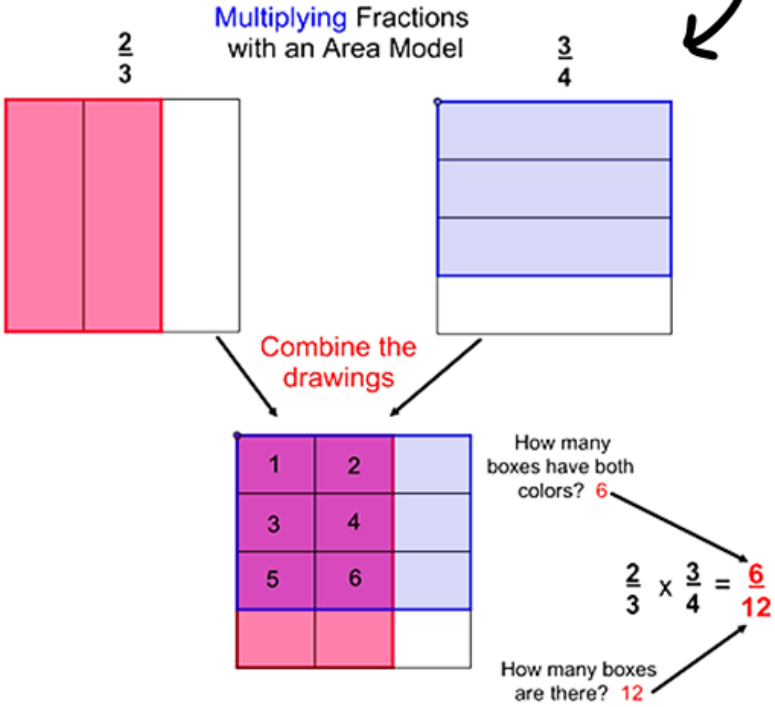
PRODUCT

The answer to a multiplication problem.

$$\frac{1}{2} \times \frac{1}{4} = \boxed{\frac{1}{8}}$$

USING MODELS

Multiplying Fractions with an Area Model



"REAL WORLD" PROBLEM:

At the Point Defiance Zoo,1/3 of the animals are mammals. Of the mammals, 1/8 are sea otters. What fraction of the mammals are sea otters?

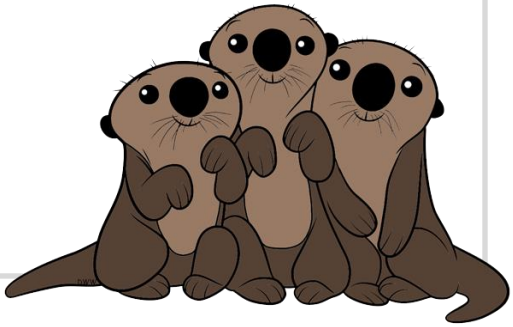
1/8 of 1/3 are sea otters.

$$\frac{1}{8} \times \frac{1}{3} = \frac{1}{24}$$

of

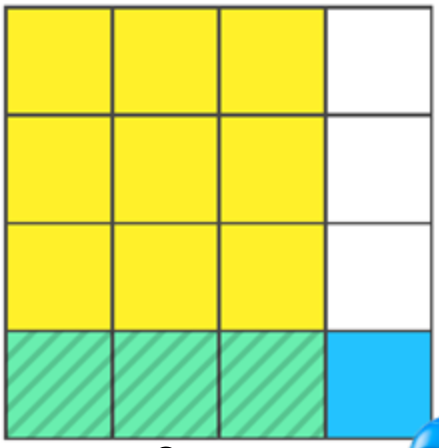
ANSWER:

Of the mammals at the Point Defiance Zoo, 1/24 are sea otters.



Michael and Donovan's clubhouse has an area of 16 square yards. ¾ of the floor is an area for building with Legos. Of that area, ¼ contains bins that hold the Legos. Use the model to determine the fraction of the clubhouse floor that holds the Lego bins.

Use the model to find the product.



$\frac{3}{4} \times \frac{1}{4} = \frac{3}{16}$

Your Turn! USE EQUATIONS OR MODELS TO SOLVE THE REAL WORLD PROBLEMS BELOW.

During practice, Lilley pitched 25 baseballs to Zach. Zach hit 4/5 of them. How many baseballs did Zach hit?

Nine-tenths of the fifth graders turned in their Explorer Summaries. 1/3 of those students also received extra credit. What fraction of the fifth graders received extra credit?