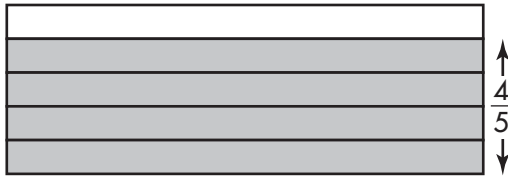


Multiplying Two Fractions

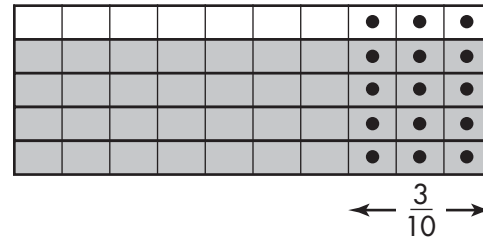
Musa and Karen are riding a bike path that is $\frac{4}{5}$ mile long. Karen's bike got a flat tire $\frac{3}{10}$ of the way down the path and she had to stop. How many miles did Karen ride?

You can find the product of two fractions by drawing a diagram.

Step 1. Draw a diagram using shading to represent $\frac{4}{5}$.



Step 2. Draw lines vertically using dots to represent $\frac{3}{10}$.



Step 3. Count the parts of the diagram that are shaded and dotted. This is the product numerator.

12

Step 4. Count the total number of parts of the diagram. This is the product denominator.

50

Step 5. Simplify if possible.

$$\frac{12}{50} = \frac{6}{25}$$

Another way to find the product:

Step 1. Multiply the numerators: $4 \times 3 = 12$.

Step 2. Multiply the denominators: $5 \times 10 = 50$.

Step 3. Simplify if possible: $\frac{12}{50} = \frac{6}{25}$.

In **1** through **6**, find the product. Simplify if possible.

1. $\frac{1}{3} \times \frac{2}{5} =$ _____

2. $\frac{5}{8} \times \frac{1}{4} =$ _____

3. $\frac{5}{6} \times \frac{3}{10} =$ _____

4. $\frac{1}{2} \times 6 =$ _____

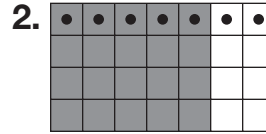
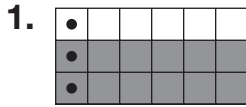
5. $14 \times \frac{3}{7} =$ _____

6. $\frac{3}{5} \times \frac{1}{2} \times \frac{6}{7} =$ _____

7. Using a diagram, show $\frac{3}{7} \times \frac{1}{4}$.

Multiplying Two Fractions

Write the multiplication problem that each model represents then solve. Put your answer in simplest form.



Find each product. Simplify if possible.

3. $\frac{7}{8} \times \frac{4}{5} =$ _____

4. $\frac{3}{7} \times \frac{2}{3} =$ _____

5. $\frac{1}{6} \times \frac{2}{5} =$ _____

6. $\frac{2}{7} \times \frac{1}{4} =$ _____

7. $\frac{2}{9} \times \frac{1}{2} =$ _____

8. $\frac{3}{4} \times \frac{1}{3} =$ _____

9. $\frac{3}{8} \times \frac{4}{9} =$ _____

10. $\frac{1}{5} \times \frac{5}{6} =$ _____

11. $\frac{2}{3} \times \frac{5}{6} \times 14 =$ _____

12. $\frac{1}{2} \times \frac{1}{3} \times \frac{1}{4} =$ _____

13. If $\frac{4}{5} \times \blacksquare = \frac{2}{5}$, what is \blacksquare ? _____

14. In Mrs. Marshall's classroom, $\frac{6}{7}$ of the students play sports. Of the students who play sports, $\frac{4}{5}$ also play an instrument. If there are 35 students in her class, how many play sports and an instrument?

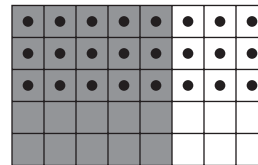
15. Which does the model represent?

A $\frac{3}{8} \times \frac{3}{5}$

C $\frac{3}{5} \times \frac{5}{8}$

B $\frac{7}{8} \times \frac{2}{5}$

D $\frac{4}{8} \times \frac{3}{5}$



16. Describe a model that represents $\frac{3}{3} \times \frac{4}{4}$

