

5.NF.4 Multiplying Large Numbers

I can multiply fractions by fractions and whole numbers.



3 ← Numerator
4 ← Denominator



WHOLE NUMBERS

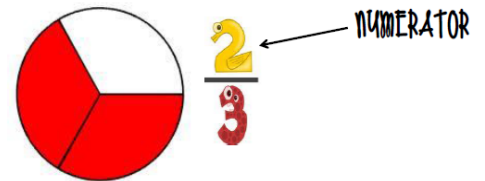
zero and the counting numbers (0, 1, 2, 3, and so on)



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NUMERATOR

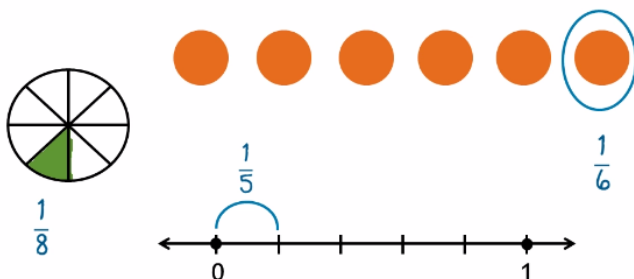
the number or expression written above the line in a fraction



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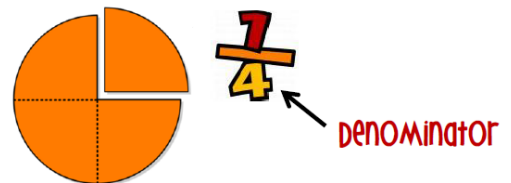
FRACTION

Part of a whole.

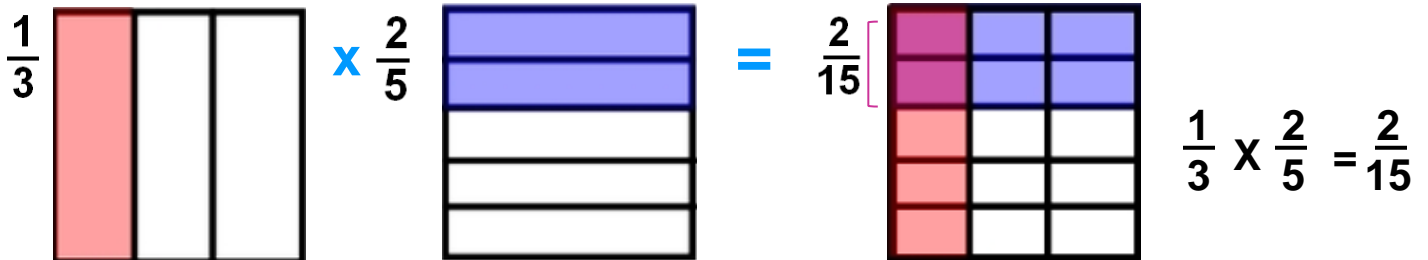


DENOMINATOR

number below the line in a fraction that tells the number of equal parts into which a whole is divided



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$$\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$$


$$\frac{1}{3} \times \frac{2}{5} = \frac{2}{15}$$

Fraction Action

1. Multiply the numerator 2. Multiply the denominator

$$\frac{1}{2} \times \frac{1}{3} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

3. Then, find simplest form or convert to a mixed number.

$$\frac{1}{4} \times \frac{2}{5} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{1}{3} \times \frac{2}{3} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{3}{4} \times \frac{2}{5} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

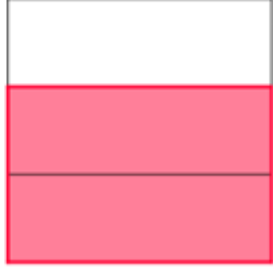
$$\frac{5}{6} \times \frac{1}{3} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

$$\frac{3}{5} \times \frac{2}{3} = \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

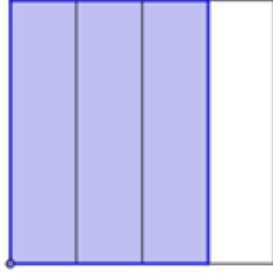
$$\frac{3}{4} \times \frac{1}{5} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$$

Multiplying Fractions with an Area Model

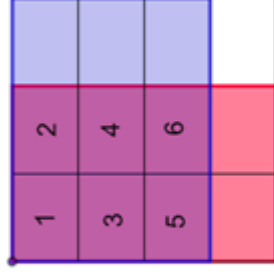
$\frac{2}{3}$



$\frac{3}{4}$



Combine the drawings



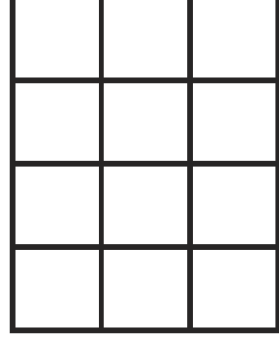
How many boxes have both colors? **6**

$$\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$$

How many boxes are there? **12**

$$\frac{2}{3} \times \frac{3}{4} = ?$$

Shade $\frac{3}{4}$ blue



Shade $\frac{2}{3}$ yellow

What fraction of the figure is shaded yellow and blue?
