

Dividing Fractions

 Guide Notes

Math 6

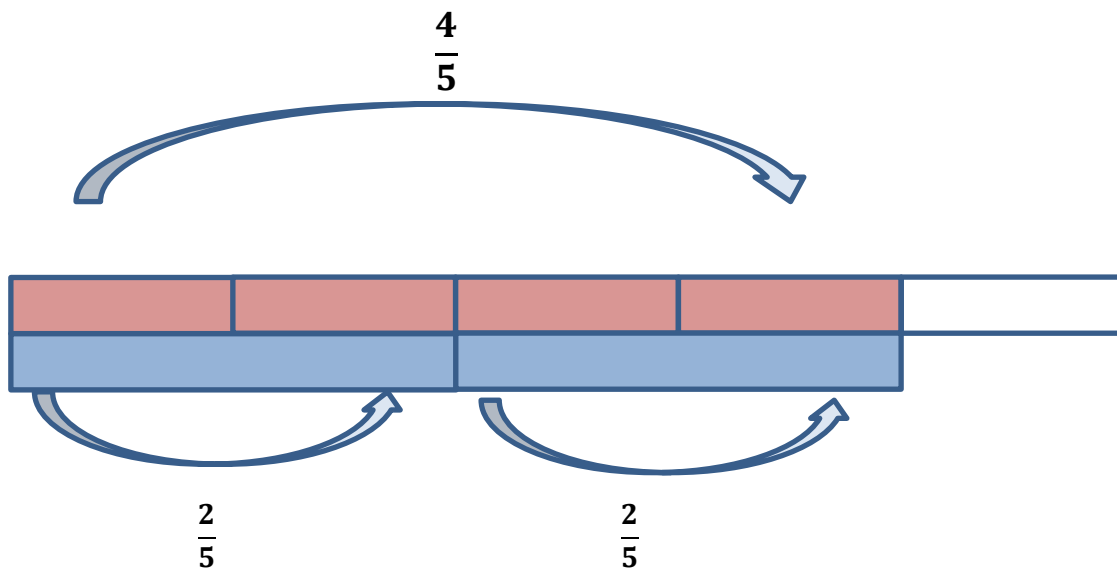
Dividing by a fraction is the same as multiplying by its reciprocal.

To divide fractions take the reciprocal (invert the fraction) of the divisor and multiply the dividend.

Division rule of two fractions

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} * \frac{d}{c} = \frac{a * d}{b * c}$$

Example: How many units of $\frac{2}{5}$ can you see in $\frac{4}{5}$?



$$\frac{4}{5} \div \frac{2}{5} = \frac{4}{5} * \frac{5}{2} = \frac{4 * 5}{5 * 2} = \frac{4}{2} = 2 \text{ units}$$

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Sample Problem 1: Draw a model to solve.

a. How many units of $\frac{1}{4}$ can you see in $\frac{3}{4}$?

b. How many units of $\frac{1}{8}$ can you see in $\frac{7}{8}$?

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Sample Problem 2: Find each quotient.

a. $\frac{2}{3} \div \frac{1}{2} =$

b. $\frac{1}{4} \div \frac{2}{4} =$

c. $\frac{1}{3} \div \frac{2}{9} =$

d. $\frac{1}{2} \div \frac{3}{4} =$

Sample problem 3: Solve each problem.

a. Diana has $\frac{1}{3}$ of a bag of dog food. Her dog eats $\frac{1}{6}$ of a bag per week. How many weeks will the food last?

b. How many halves are there in six-fourth?