

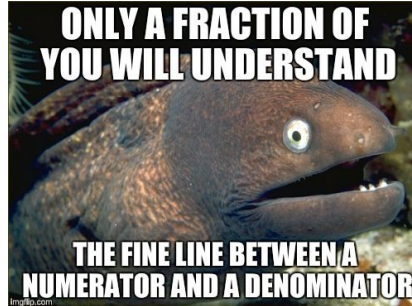
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MATH 8 Chapter 3: Fraction Operations

Computational fluency and flexibility to extend to operations with fractions

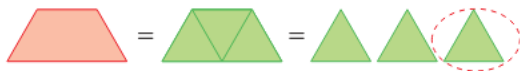
6.2 Dividing a Fraction by a Whole Number p.204 - 209



Explore the Math

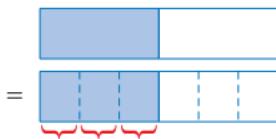
How can you model the division of a fraction by a whole number?

1. The diagram shows a way to model $\frac{1}{2} \div 3 = \frac{1}{6}$ using pattern blocks.



- a) Explain how the pattern blocks model the division.

- b) Explain how the diagram of a rectangle models the same division.



2. a) Model the division $\frac{2}{3} \div 2$ using pattern blocks.

- b) Model the same division using a diagram of a rectangle.

- c) Copy and complete the division statement $\frac{2}{3} \div 2 = \blacksquare$.

Example 1: Divide Using Manipulatives

Determine $\frac{1}{4} \div 3$.

Show You Know

Determine each quotient using manipulatives.

a) $\frac{3}{4} \div 3$ b) $\frac{5}{6} \div 2$

Example 2: Divide Using Diagrams

Determine $\frac{2}{3} \div 4$. Express the quotient in lowest terms.

Show You Know

Determine each quotient using a diagram. Express the quotient in lowest terms.

a) $\frac{1}{2} \div 5$ b) $\frac{3}{5} \div 3$

Example 3: Apply Division With Fractions

Mustafa used $\frac{3}{4}$ of a jar of pasta sauce on six servings of pasta. He used the same amount of sauce on each serving. What fraction of the jar of pasta sauce did he use on each serving?

Show You Know

Four students equally shared $\frac{1}{2}$ of a cake. What fraction of the cake did each student eat?

