Unit 3, Lesson 4

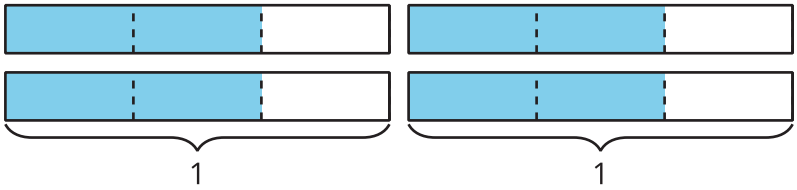
Equal Groups of Non-unit Fractions

Let's multiply any fraction by a whole number.

Warm-up

Notice and Wonder: Thirds

What do you notice? What do you wonder?



Activity 1

Jars of Slime

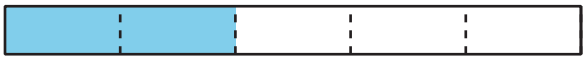
Elena's science club makes red and blue slime. She fills 5 small jars with slime to share with her friends. Each jar can fit $\frac{3}{4}$ cup of slime. How many cups of slime are in the jars?

If you have time: Elena still has some slime left. She takes 2 large jars and puts $\frac{5}{4}$ cups of slime in each jar. How many cups of slime are in the jars?

Activity 2

How Do We Multiply?

1. This diagram represents $\frac{2}{5}$.



   a. Show how you would change the diagram to represent $4 \times \frac{2}{5}$.

   b. What is the value of the shaded parts in your diagram?

2. This diagram represents $\frac{5}{8}$.

   a. Show how you would change the diagram to represent $3 \times \frac{5}{8}$.

   b. What is the value of the shaded parts in your diagram?

3. Find the value of each expression. Draw a diagram if you find it helpful.

   a. $2 \times \frac{1}{6}$

   b. $2 \times \frac{4}{6}$

   c. $2 \times \frac{5}{6}$

   d. $4 \times \frac{5}{6}$

4. Mai says that to multiply any fraction by a whole number, she multiplies the whole number and the numerator of the fraction and keeps the same denominator. Do you agree with Mai? Explain your reasoning.