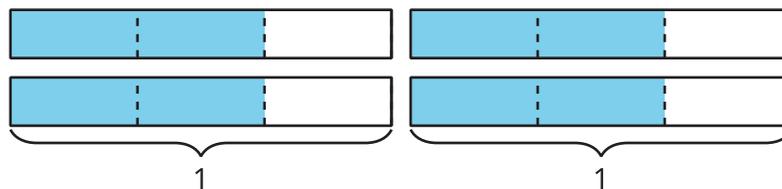# Lesson 4: Equal Groups of Non-Unit Fractions

- Let's multiply any fraction by a whole number.

Warm-up: Notice and Wonder: Thirds

What do you notice? What do you wonder?

4.1: Jars of Jam

Elena fills 5 small jars with homemade jams to share with her friends. Each jar can fit $\frac{3}{4}$ cup of jam. How many cups of jam are in the jars? Explain or show your reasoning.

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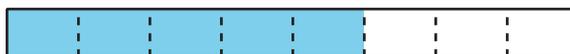
4.2: How Do We Multiply?

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

   a. Show how you would use or adjust 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 use or adjust 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. Be prepared to explain your reasoning.

    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 said that to multiply any fraction by a whole number, she would multiply the whole number and the numerator of the fraction and keep the same denominator. Do you agree with Mai? Explain your reasoning.

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