## Lesson 2: Representations of Equal Groups of Fractions

* Let’s look at diagrams and expressions that can help us multiply a whole number and a fraction.

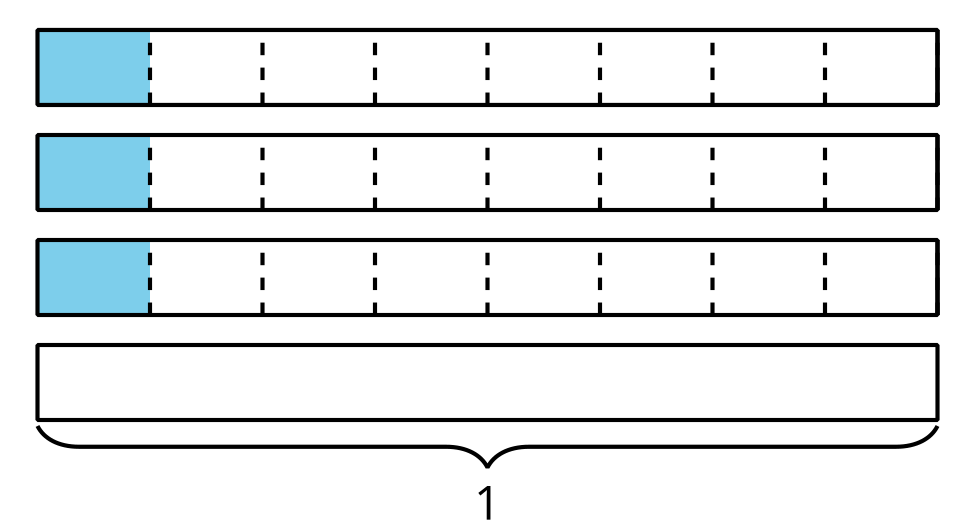
### Warm-up: Number Talk: Three, Six, Nine, Twelve

Find the value of each expression mentally.

### 2.1: Card Sort: Expressions and Diagrams

Your teacher will give you a set of cards with expressions and diagrams.

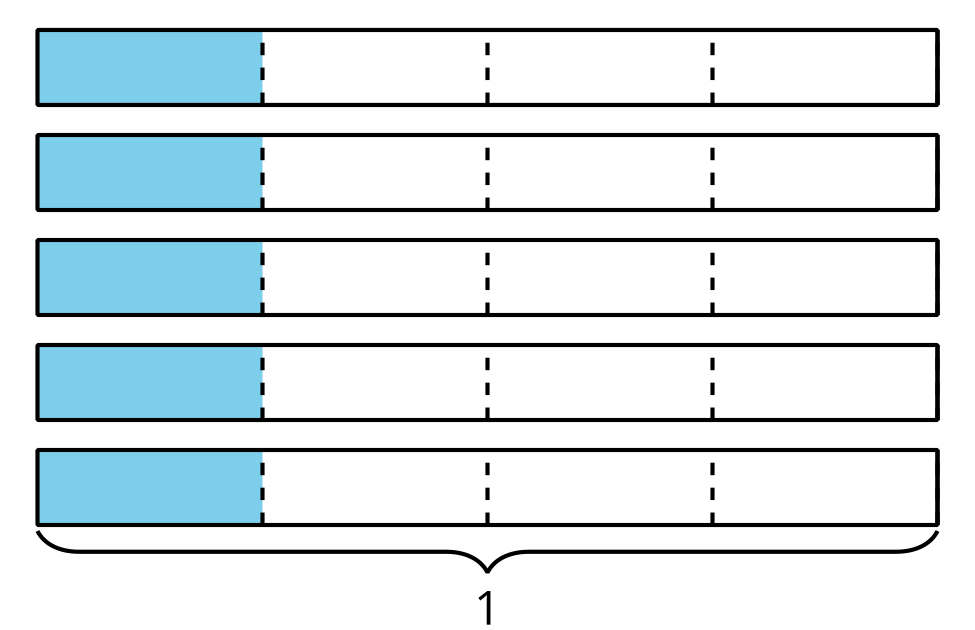
1. Match each expression with a diagram that represents the same quantity.
2. Record each expression without a match.
3. Han started drawing a diagram to represent and did not finish. Complete his diagram. Be prepared to explain your reasoning.

* 

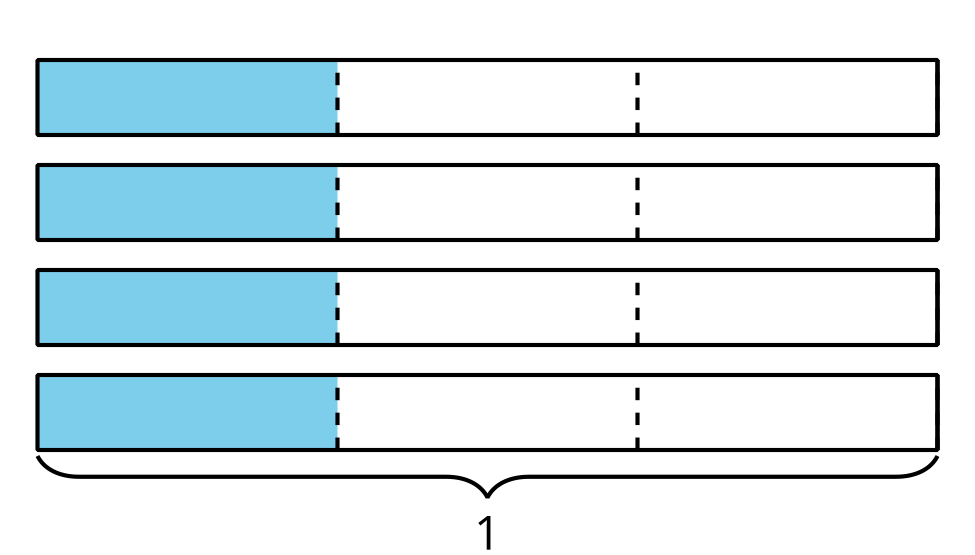
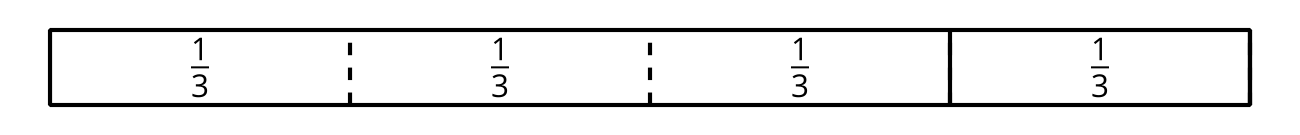
1. Choose one expression that you recorded earlier that didn't have a match.

* Draw a diagram that can be represented by the expression. What value do the shaded parts of your diagram represent?

### 2.2: Different Representations

* 1. Write a multiplication expression that represents the shaded parts of the diagram. Then, find the value of the expression.
  + Diagram:
  + 
  + Expression:
  + Value:
  1. Draw a diagram that the expression  could represent. Then, find the value of the expression.
  + Diagram:
  + Expression:
  + Value:
  1. Draw a diagram and write an expression that gives the value .
  + Diagram:
  + Expression:
  + Value:

1. To represent , Diego drew this diagram:

* 
* Elena drew this diagram:
* 
* Are they representing the same expression and value? Explain or show how you know.



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