## Unit 3 Lesson 4: What Fraction of a Group?

### 1 Estimating a Fraction of a Number (Warm up)

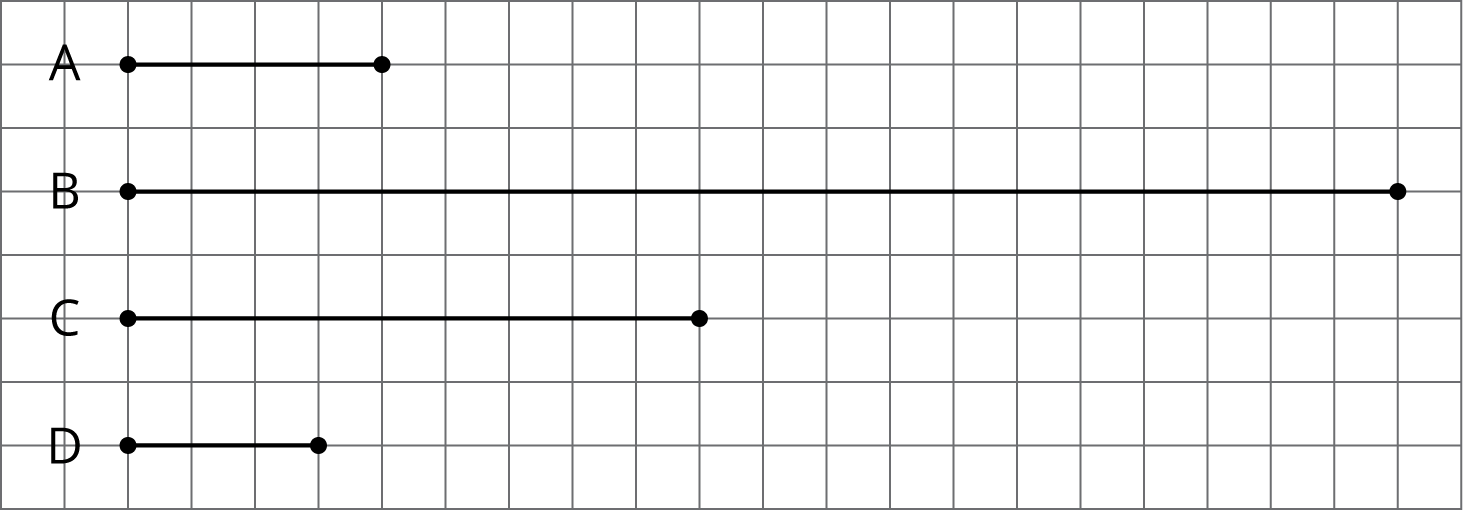
#### Student Task Statement

1. Estimate the quantities:
   1. What is of 7?
   2. What is of ?
   3. What is of ?
2. Write a multiplication expression for each of the previous questions.

### 2 Fractions of Ropes

#### Student Task Statement

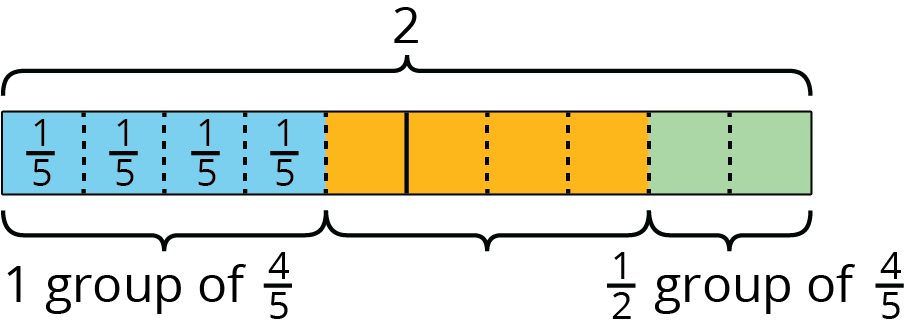
Here is a diagram that shows four ropes of different lengths.

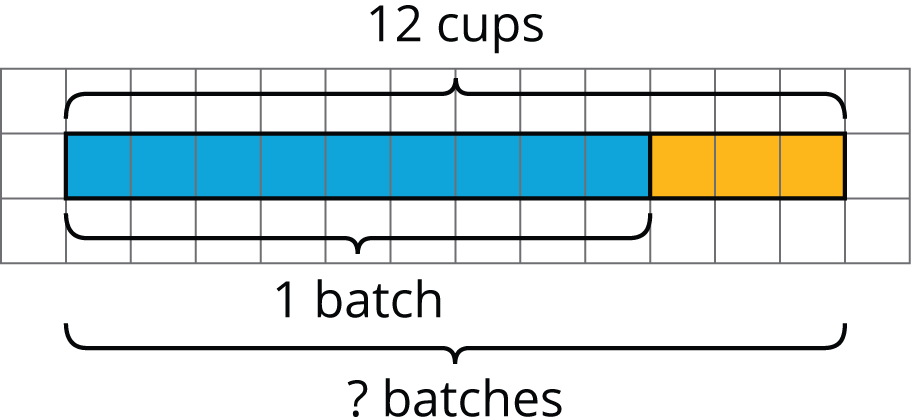


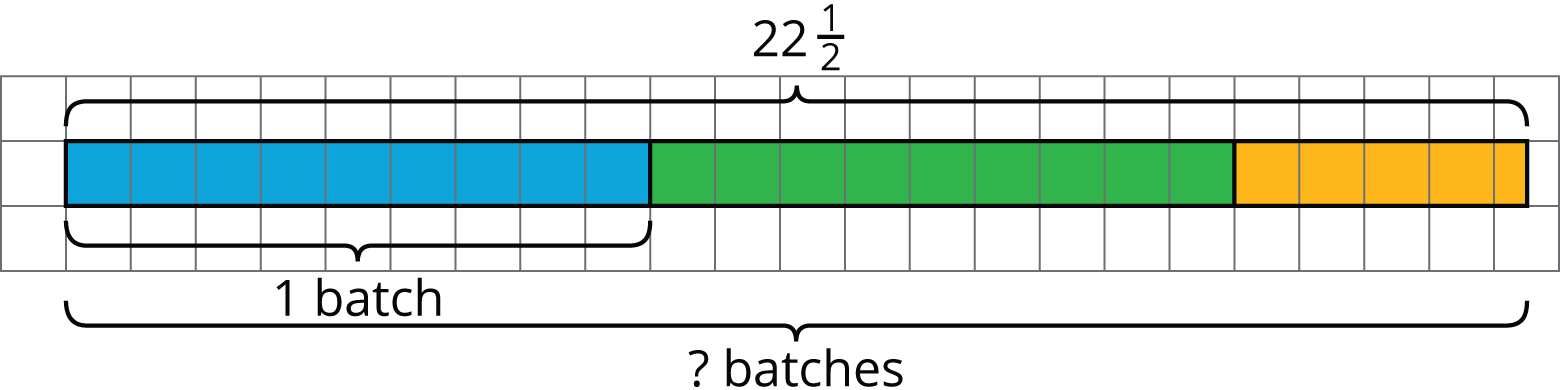
1. Complete each sentence comparing the lengths of the ropes. Then, use the measurements shown on the grid to write a multiplication equation and a division equation for each comparison.
   1. Rope B is \_\_\_\_\_\_\_ times as long as Rope A.
   2. Rope C is \_\_\_\_\_\_\_ times as long as Rope A.
   3. Rope D is \_\_\_\_\_\_\_ times as long as Rope A.
2. Each equation can be used to answer a question about Ropes C and D. What could each question be?
   1. and
   2. and

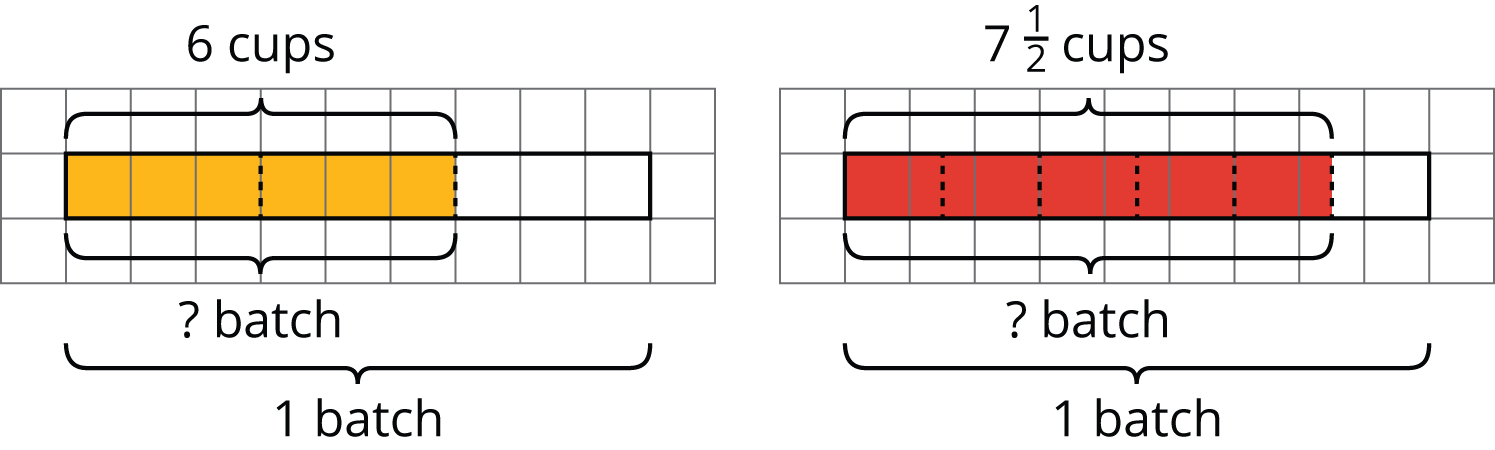
### 3 Fractional Batches of Ice Cream

#### Images for Launch









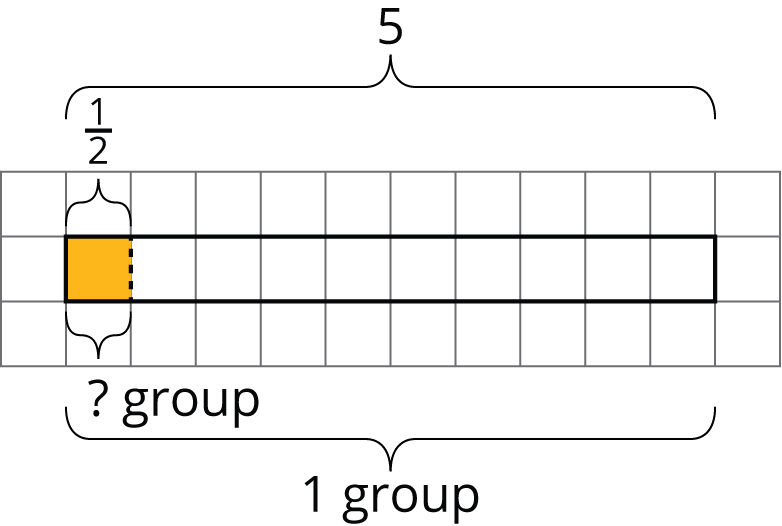
#### Student Task Statement

One batch of an ice cream recipe uses 9 cups of milk. A chef makes different amounts of ice cream on different days. Here are the amounts of milk she used:

* Monday: 12 cups
* Tuesday: cups
* Thursday: 6 cups
* Friday: cups

1. How many batches of ice cream did she make on these days? For each day, write a division equation, draw a tape diagram, and find the answer.
   1. Monday
   * 
   1. Tuesday
   * 
2. What fraction of a batch of ice cream did she make on these days? For each day, write a division equation, draw a tape diagram, and find the answer.
   1. Thursday
   * 
   1. Friday
   * 
3. For each question, write a division equation, draw a tape diagram, and find the answer.
   1. What fraction of 9 is 3?
   * 
   1. What fraction of 5 is ?
   * 

#### Activity Synthesis





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