

# Unit 4 Lesson 7: What Fraction of a Group?

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

### Student Task Statement

1. Estimate the quantities:

a. What is  $\frac{1}{3}$  of 7?

b. What is  $\frac{4}{5}$  of  $9\frac{2}{3}$ ?

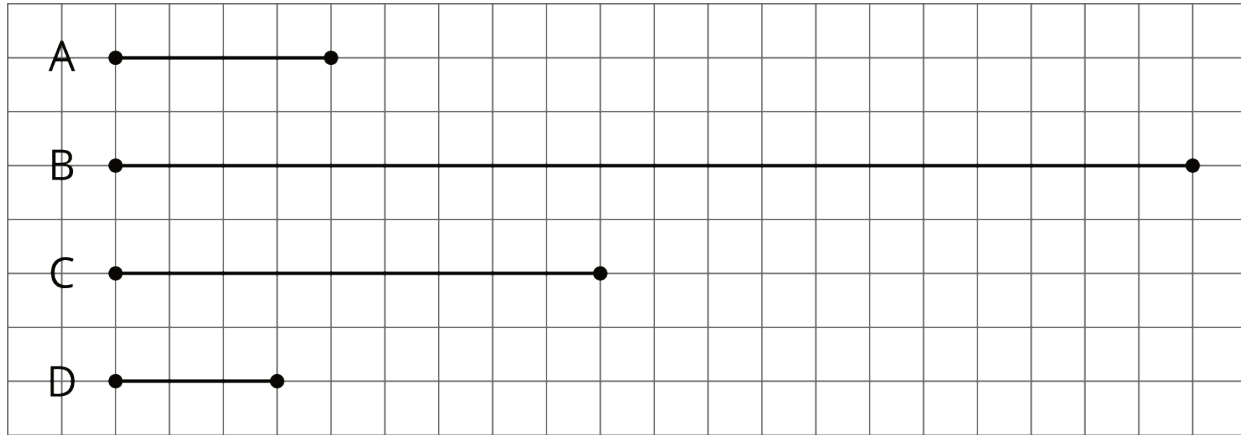
c. What is  $2\frac{4}{7}$  of  $10\frac{1}{9}$ ?

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.
  - a. Rope B is \_\_\_\_\_ times as long as Rope A.
  - b. Rope C is \_\_\_\_\_ times as long as Rope A.
  - c. Rope D is \_\_\_\_\_ times as long as Rope A.

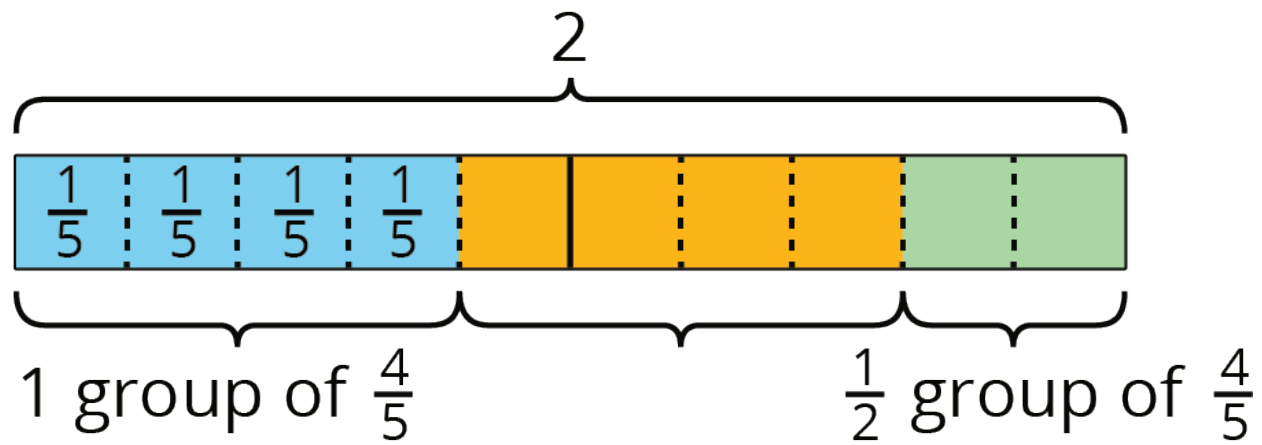
2. Each equation can be used to answer a question about Ropes C and D. What could each question be?

a.  $? \cdot 3 = 9$  and  $9 \div 3 = ?$

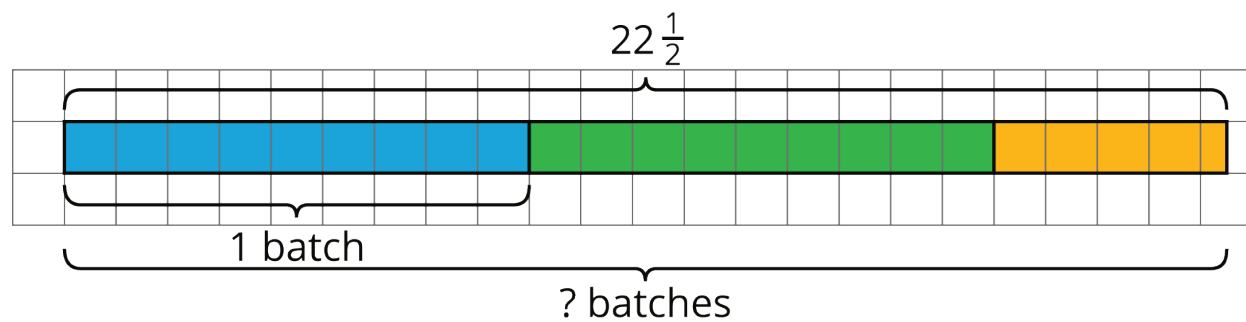
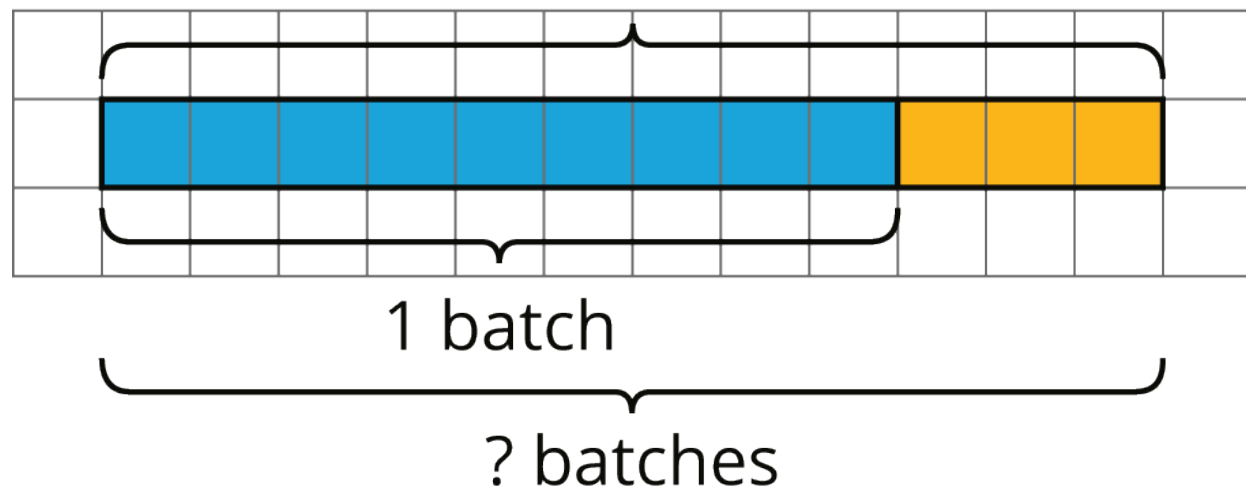
b.  $? \cdot 9 = 3$  and  $3 \div 9 = ?$

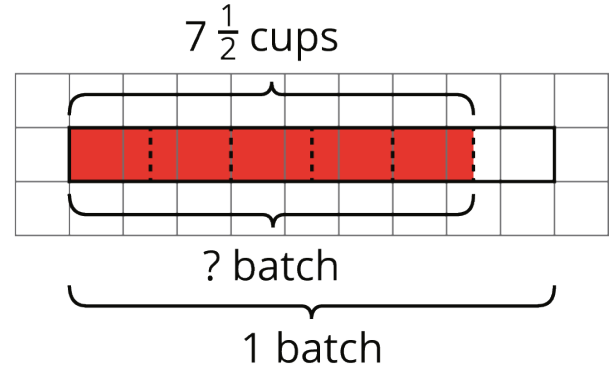
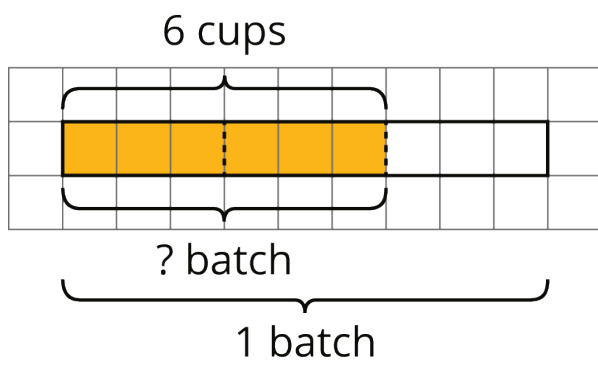
### 3 Fractional Batches of Ice Cream

Images for Launch



12 cups





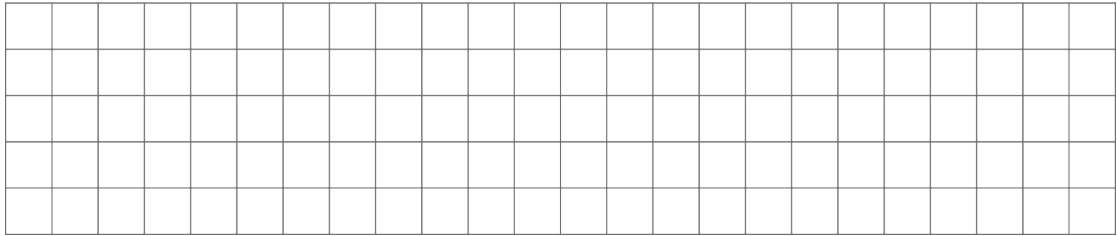
**Student Task Statement**

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:

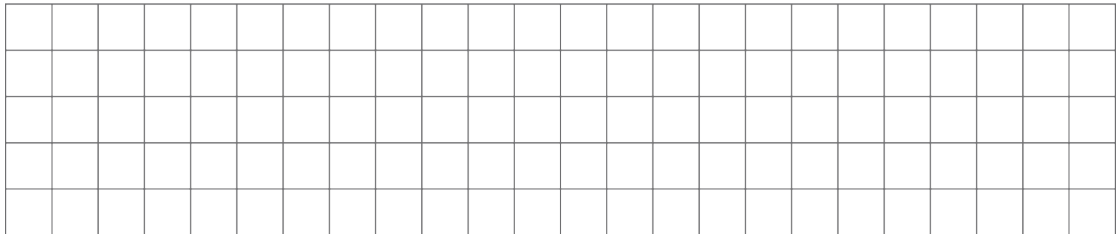
- Monday: 12 cups
- Tuesday:  $22\frac{1}{2}$  cups
- Thursday: 6 cups
- Friday:  $7\frac{1}{2}$  cups

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.

a. Monday



b. 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.

a. Thursday



Activity Synthesis

