

# Lesson 16: Razonemos sobre los cocientes

## Standards Alignments

Addressing 5.NF.B.7, 5.NF.B.7.b

### Teacher-facing Learning Goals

- Assess the reasonableness of quotients.
- Divide unit fractions and whole numbers.

### Student-facing Learning Goals

- Pongamos en práctica lo que sabemos sobre la división para estar seguros de que nuestras respuestas tienen sentido.

## Lesson Purpose

The purpose of this lesson is for students to find quotients involving a whole number and a unit fraction and assess the reasonableness of their answers.

In previous lessons students found the value of quotients of a unit fraction and a whole number. In this lesson they think about comparing the value of these quotients without calculating. For example, students know from earlier work that  $48 \div 4$  is less than  $48 \div 2$  because there are more groups of 2 in 48 than groups of 4. By the same reasoning  $10 \div \frac{1}{3}$  is less than  $10 \div \frac{1}{5}$  because  $\frac{1}{5}$ s are smaller than  $\frac{1}{3}$ s and so it takes more  $\frac{1}{5}$ s to make an amount. This kind of reasoning also shows that  $\frac{1}{4} \div 15$  is less than  $\frac{1}{4} \div 12$  because dividing the same amount into more pieces creates smaller pieces.

### Access for:

#### Students with Disabilities

- Engagement (Activity 1)

## Instructional Routines

Estimation Exploration (Warm-up), MLR1 Stronger and Clearer Each Time (Activity 1)

### Lesson Timeline

Warm-up	10 min
Activity 1	20 min
Activity 2	15 min

### Teacher Reflection Question

Reflect on a time your thinking changed about something in class recently. How will you alter your teaching practice to incorporate your new understanding?

Lesson Synthesis 10 min

Cool-down 5 min

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## Cool-down (to be completed at the end of the lesson)

 5 min

Ambos tipos de problemas

### Standards Alignments

Addressing 5.NF.B.7

### Student-facing Task Statement

¿Cuál es mayor:  $5 \div \frac{1}{3}$  o  $\frac{1}{3} \div 5$ ? Explica o muestra cómo razonaste.

### Student Responses

Sample response:  $5 \div \frac{1}{3}$  is greater than  $\frac{1}{3} \div 5$ .  $5 \div \frac{1}{3}$  is greater than 1 because there are a lot more than one thirds in 5.  $\frac{1}{3} \div 5$  is less than 1 because  $\frac{1}{3}$  is being divided into smaller pieces.