

# REPRODUCIBLE

**Figure 4.15. Who Has More? Grade 3 to 5 Adapted Task**

<h2 style="margin: 0;">Who Has More?</h2> <p style="margin: 0;">Grade 3 to 5 Adapted Task</p>	
Overview: Teacher Notes	
<p>Students will analyze situations where <math>\frac{1}{2}</math> of a quantity is not necessarily equal to <math>\frac{1}{2}</math> of a different quantity.</p>	<p><b>Prerequisite Understandings</b></p> <ul style="list-style-type: none"> <li>• Represent a fraction using a visual model.</li> </ul>
<p><b>Cognitively Relevant and Culturally Demanding Framework Connection (Figure 1.8)</b></p> <p> Visit <a href="http://www.mathedleadership.org/EAResources">www.mathedleadership.org/EAResources</a> to download a free reproducible version of this figure.</p>	
<p><b>Task Rating: Developing Task</b></p> <p>Requires considerable cognitive effort AND is embedded in cultural/self/community inquiry and activity</p> <ul style="list-style-type: none"> <li>• The task is centered in real-world situations requiring students to inquire deeply about themselves, their communities, and the world about them.</li> <li>• Requires students to draw from, use, and embrace community and cultural knowledge directly in developing strategy and solution processes.</li> <li>• Task content seeks to add to this knowledge through mathematical activity.</li> </ul>	<p><b>Task Rating Reflection</b></p> <p>This task has students exploring and comparing fractions related to items to food they eat with their family.</p> <p>Students are adding to their own cultural knowledge and learning about their classmates through this task as they compare fractions as they compare different types of bread from different families</p>
Curriculum Content	
<p><b>Content Standards</b></p>	<p>Compare two fractions with different numerators and different denominators.</p> <p>Recognize that comparisons are valid only when the two fractions refer to the same whole.</p>
<p><b>Mathematical Process Standards</b></p>	<p><b>Construct viable arguments and critique the reasoning of others:</b> Students explain their reasoning and consider multiple approaches.</p> <p><b>Model with mathematics:</b> Students use multiple models for representing fractions.</p>
Task	
<p><b>Supplies</b></p> <ul style="list-style-type: none"> <li>• Blank paper</li> <li>• Number lines and fraction bars</li> <li>• Fraction circles</li> <li>• Fraction tiles</li> </ul>	<p><b>Core Activity</b></p> <p>Students will compare fractions using items found in their homes.</p>

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## Who Has More? (continued)

### Task (continued)

#### Launch

Utilize these fraction activities to launch student exploration.

- What do you notice about the images? What do you wonder?
- Which one of these doesn't belong? Why or why not?

#### Extension(s)

There are six tortillas and a family ate  $\frac{2}{3}$  of them for dinner. Show how that is possible.

Think about your family, and if each person ate  $\frac{2}{3}$  of a tortilla, how many tortillas would your family need with the meal. Show or explain your answer.

Write your own story problem comparing your family bread to other classmates. What is the same and what is different when you compare them?

#### Launch

Utilize these fraction activities to launch student exploration.

1. What do you notice about the images? What do you wonder?



Mooncake



Sweet Potato Pie

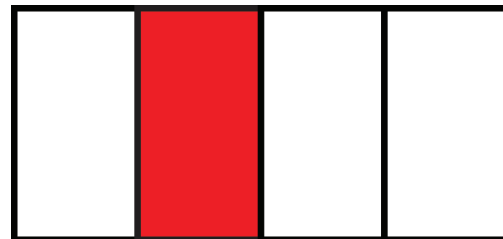


Green Tea Cake



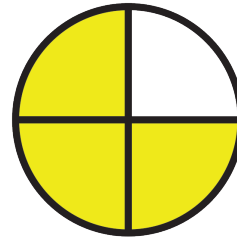
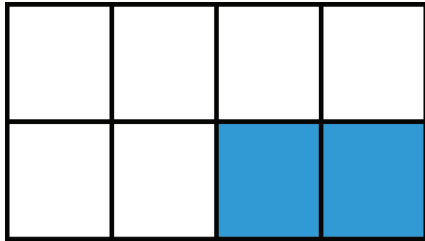
Baklava

2. Which one of these doesn't belong? Why or why not?



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## Who Has More? (continued)



### Activity

Generate a list of items from home that are cut in half. Ask students to elaborate, specify, and highlight mathematical language. This could be done using sticky notes, so students could talk about how to sort the items or record them in a Jamboard if a virtual space is necessary or on an anchor chart.

Discuss similarities and differences between and among the items on the generated list. Utilize a Notice and Wonder strategy to aid conversation as students sort the images.

*Which of the items can be compared easily?*

*Which cannot? Why is that?*

*What are some types of bread you like to eat?* Have students share images of the types of bread they like to eat and discuss as a class.



*What shape is the bread you eat at home? Draw me a picture on your paper or whiteboard.*

*How would you divide it into halves? Fourths? Eighths? Tenths? Twelfths?*

Types of bread may include naan, pita, tortilla, roti, cornbread, fry bread, and injera.

*Here is a story about Mateo, who eats naan bread.*

Mateo said that he ate  $\frac{1}{2}$  of a piece of naan bread.

Elani also said that she ate  $\frac{1}{2}$  of a piece of naan bread and claimed she ate more than Mateo.

Use pictures, numbers, and words (written or dictated) so Mateo understands how Elani might be right.

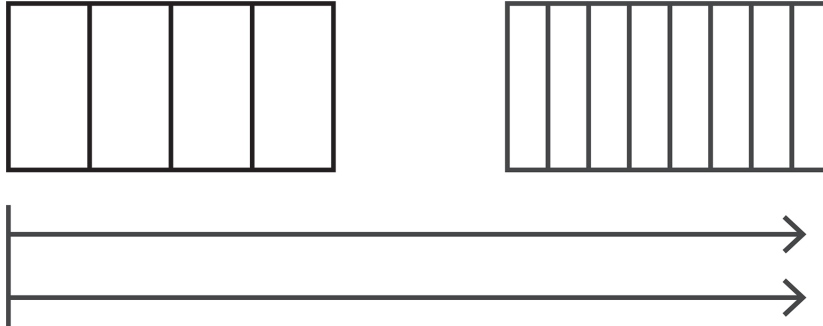
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## Who Has More? (continued)

### Activity (continued)

Consider student strengths as they engage with the task above. Included below is an additional activity to strengthen and extend the topic. Allow for choice in representations. All questions do not need to be assigned to every student.

Two identical loaves of focaccia bread are cut into 4 and 8 pieces.



1. How many **pieces** would you have to eat from each of the two focaccia loaves to have eaten the same **amount** of each loaf? Explain your reasoning.
2. Is there more than one answer to this question? How do you know?


### Extension Ideas

There are six tortillas and a family ate  $\frac{2}{3}$  of them for dinner. Show how that is possible.

Think about your family, and if each person ate  $\frac{2}{3}$  of a tortilla, how many tortillas would your family need with the meal. Show or explain your answer.

Find two to three cultures that have bread as a major part of their everyday meals. Is it easy for the community ties you found to make or get the bread? How do you know?

Figure 4.15. *Who Has More?* Grade 3 to 5 Adapted Task

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