

SECURE MATERIAL – Reader Name: _____
Tennessee Comprehensive Assessment Program

TCAP/CRA

2014



3

Phase II

Sharing Pizza Task

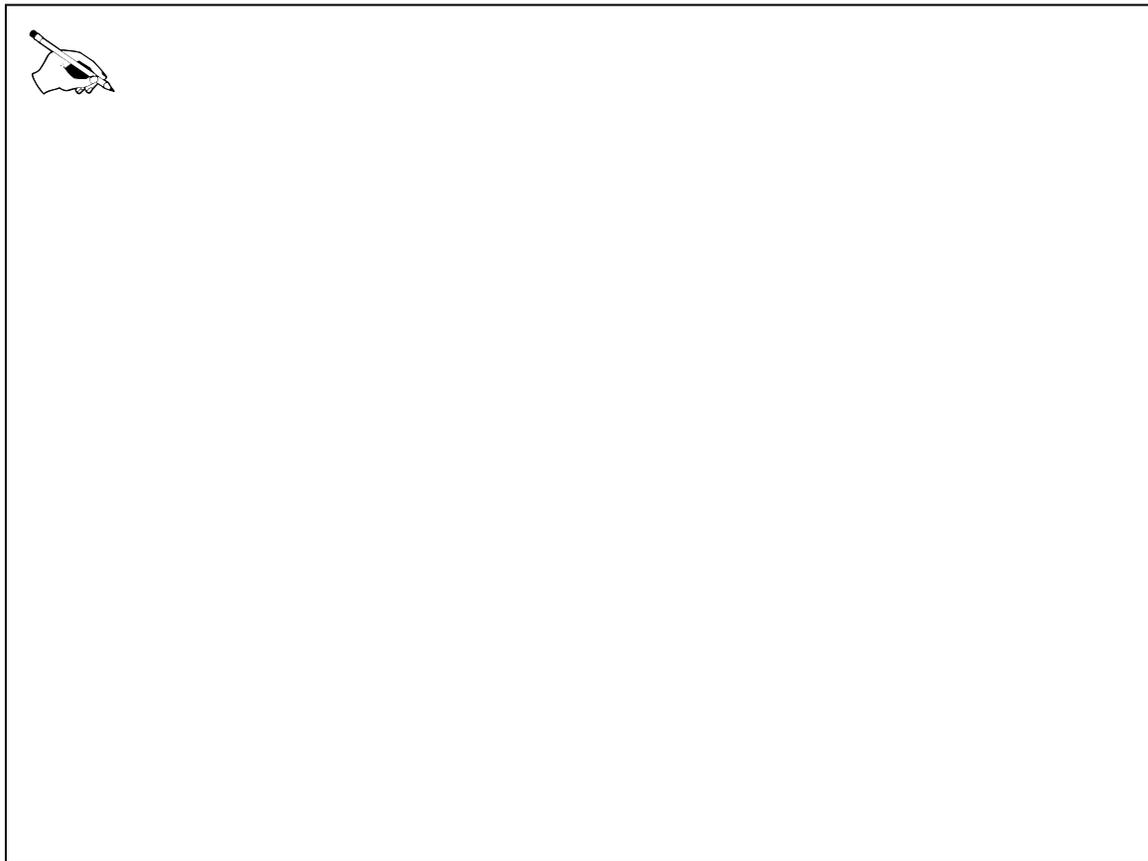
Anchor Set

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Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.



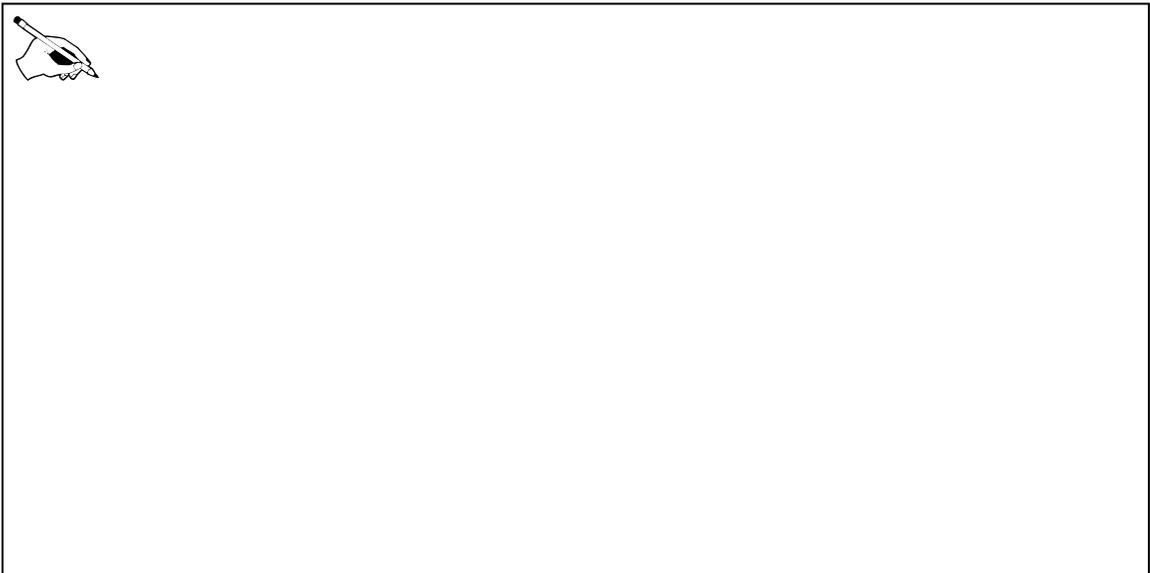
Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.



- c. Explain with words and a diagram why you agree or disagree with Kim.



Scoring Guide

The CCSS for Mathematical Content (2 points)

3.NF.A.3d Compare two fractions with the same denominator by recording the results of the comparisons with the symbols $>$ or $<$. Student may do this by: _____

- writing $\frac{5}{6} > \frac{4}{6}$ or $\frac{4}{6} < \frac{5}{6}$;
- showing the comparison of Kim's amount, $\frac{3}{6}$, to either $\frac{4}{6}$ or $\frac{5}{6}$ (although the student was not asked to compare Kim's amount, the student is still showing the ability to compare fractions).

(1 Point)

3.NF.A.3c States $\frac{2}{1}$ is 2 whole pizzas. _____

(1 Point)

The CCSS for Mathematical Practice (3 points)

MP4 Creates an accurate diagram showing $\frac{5}{6}$, $\frac{4}{6}$, $\frac{2}{1}$, and $\frac{1}{2}$ (or $\frac{3}{6}$ if applicable). _____

(1 Point)

(MP4: Model with mathematics.)

MP6 Indicates a precise explanation of why one amount is greater than the other amount. The explanation makes reference to the denominators and the numerators of the fractions being compared. _____

(1 Point)

(MP6: Attend to precision).

MP7 Indicates in written explanation or diagram that $\frac{1}{2}$ is less than a whole and $\frac{2}{1}$ is two wholes. _____

(1 Point)

(MP7: Look for and make use of structure.)

TOTAL POINTS: 5

The CCSS for Mathematical Content Addressed In This Task

Develop understanding of fractions as numbers.

3.NF.A.3c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.*

3.NF.A.3d Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.

The CCSS for Mathematical Practice*

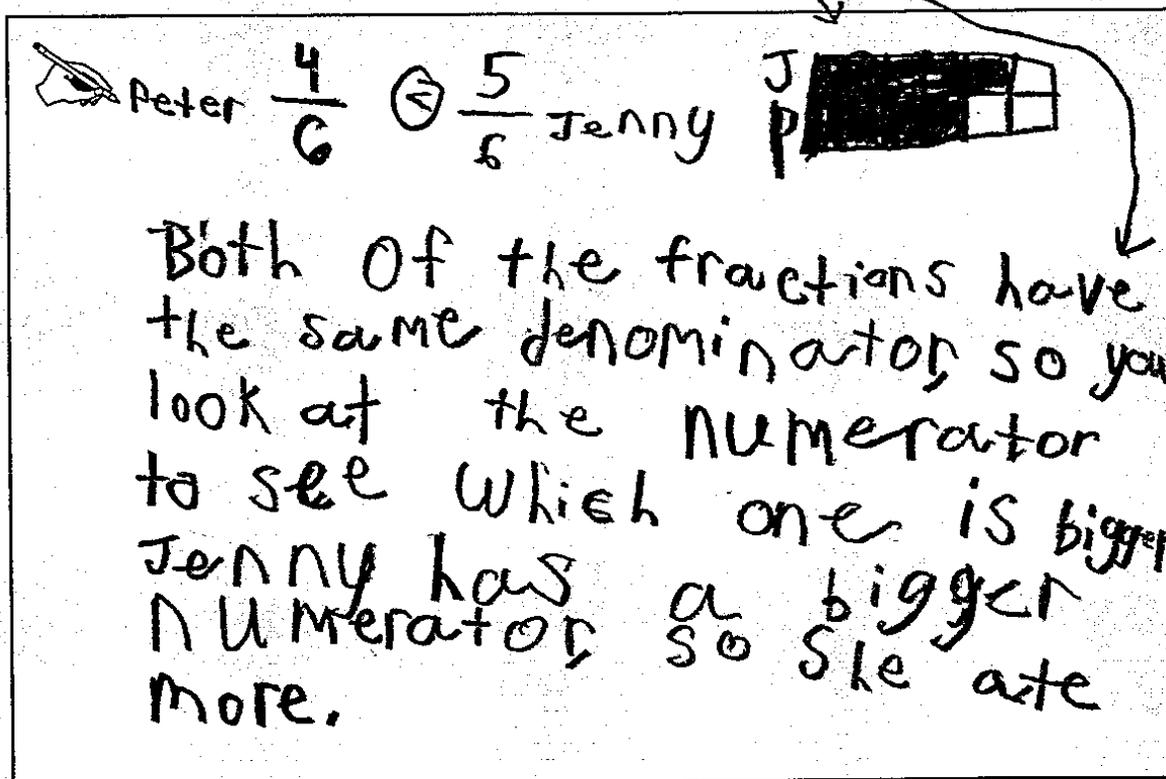
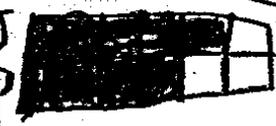
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

* Gray type indicates Mathematical Practices not addressed in this assessment.

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.


 Peter $\frac{4}{6}$ $<$ $\frac{5}{6}$ Jenny
 

Both of the fractions have the same denominator, so you look at the numerator to see which one is bigger. Jenny has a bigger numerator, so she ate more.

Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

b. Explain with words and a diagram why you agree or disagree with Peter.

I agree with Peter because they shared 2 pizzas, and $\frac{2}{1} = 2$ pizzas.

c. Explain with words and a diagram why you agree or disagree with Kim.

I disagree with Kim because she is saying they ate half of a pizza, but they ate two pizzas.

Anchor 1

Litho 00263200144

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 3 (MP4, MP6, MP7)

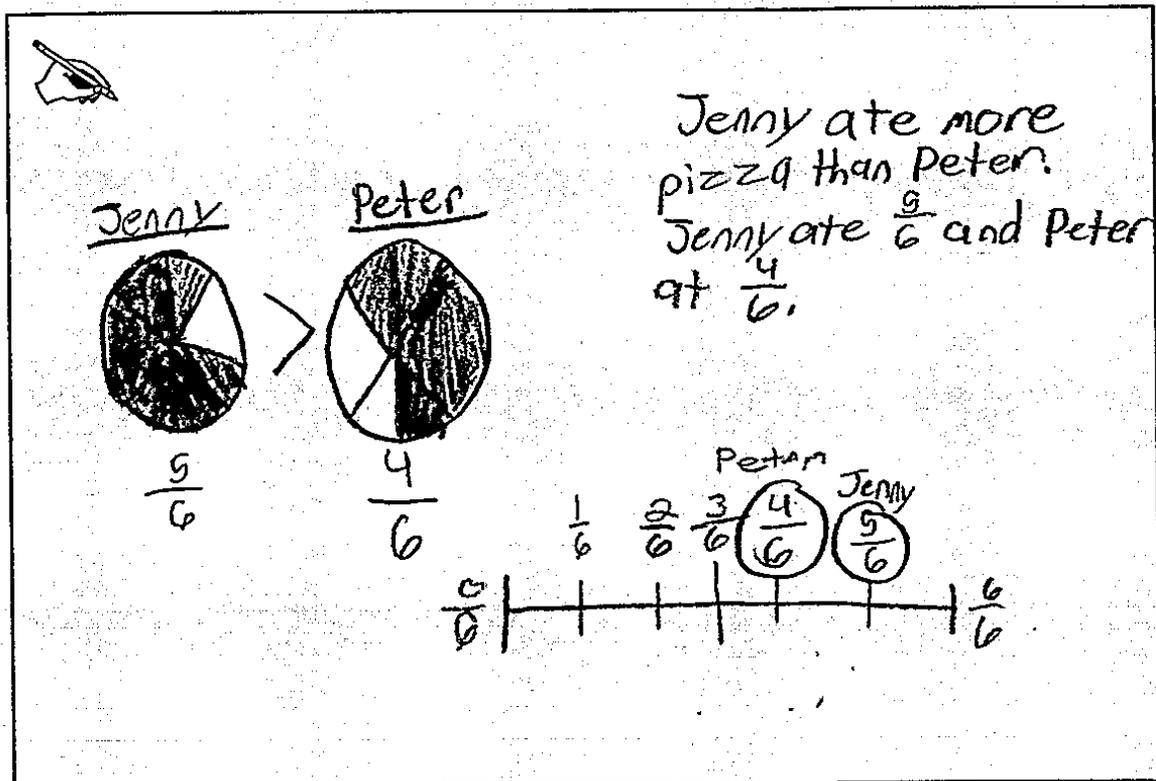
In Part A, the student correctly compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “ $\frac{4}{6} < \frac{5}{6}$ ” (3.NF.A.3d). In Part B, the student states that $\frac{2}{1}$ is 2 whole pizzas (“ $\frac{2}{1} = 2$ pizzas”) (3.NF.A.3c). The student creates accurate diagrams showing Jenny’s $\frac{5}{6}$, Peter’s $\frac{4}{6}$, and Kim’s $\frac{3}{6}$ in Part B by labeling the individual slices with initials, showing $\frac{2}{1}$ in Part B, and showing $\frac{1}{2}$ in Part C (MP4). In Part A, the student indicates a precise explanation of why one amount is greater than the other amount by making reference to the denominators and the numerators of the fractions being compared (“Both of the fractions have the same denominator, so you look at the numerator to see which one is bigger. Jenny has a bigger numerator, so she ate more.”) (MP6). In Part C, the student indicates that $\frac{1}{2}$ is less than a whole by creating a diagram showing a whole with only half shaded, and that $\frac{2}{1}$ is two wholes by showing 2 pizzas with a “2” pointing to them (MP7).

Total Awarded Points: 5 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.



Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

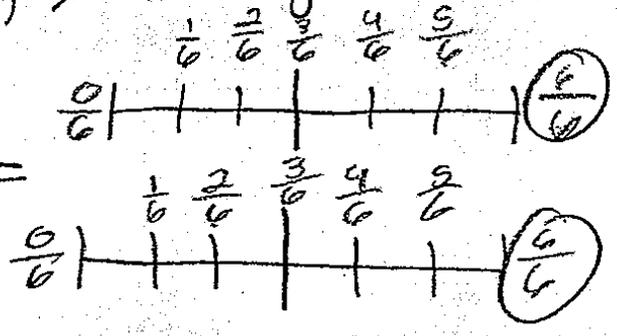
b. Explain with words and a diagram why you agree or disagree with Peter.

 I agree with Peter because:

$$\frac{5}{6} + \frac{3}{6} + \frac{4}{6} = \frac{12}{6}, \text{ you can get two } \frac{6}{6}$$

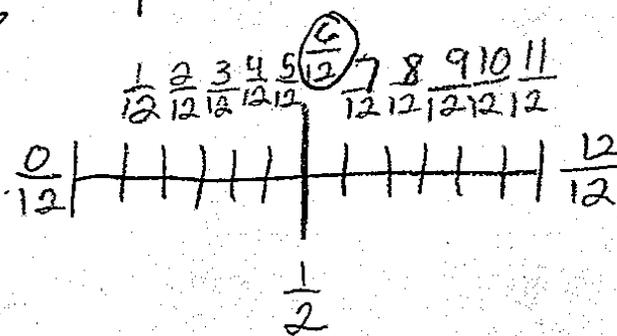
out of 12.

$12 =$

$$\frac{6}{6} + \frac{6}{6} = \frac{12}{6}$$


c. Explain with words and a diagram why you agree or disagree with Kim.

 I disagree with Kim because:

$$\frac{12}{6} = \frac{2}{1} \quad \text{1 half would be } \frac{6}{12}$$


Anchor 2

Litho 00063200145

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 2 (MP4, MP7)

In Part A, the student compares two fractions with the same denominator by drawing diagrams representing $\frac{5}{6}$ and $\frac{4}{6}$ and labeled accordingly, and then correctly using an inequality symbol to represent the relationship between them (3.NF.A.3d). In Part B, the student indicates that $\frac{2}{1}$ is 2 whole pizzas by stating, “you can get two 6s out of 12” and illustrating the point by drawing two number lines with $\frac{6}{6}$ circled on each of them

(3.NF.A.3c). The student creates accurate diagrams showing $\frac{5}{6}$ and $\frac{4}{6}$ in Part A, and uses number lines in Part B showing $\frac{2}{1}$, and also in Part C to show $\frac{1}{2}$ (MP4). In Part A, by providing only a diagram without explaining further with words the relevance of the numerator and same denominator, the student does not indicate a precise explanation of why one amount is greater than the other amount, with reference to the denominators and the numerators of the fractions being compared (no credit for MP6). In Part B, the student indicates with two number lines that $\frac{2}{1}$ is two wholes, and in Part C, demonstrates with a number line that $\frac{1}{2}$ is less than a whole by showing $\frac{12}{12}$, circling $\frac{6}{12}$, and also labeling that as $\frac{1}{2}$ (MP7).

Total Awarded Points: 4 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

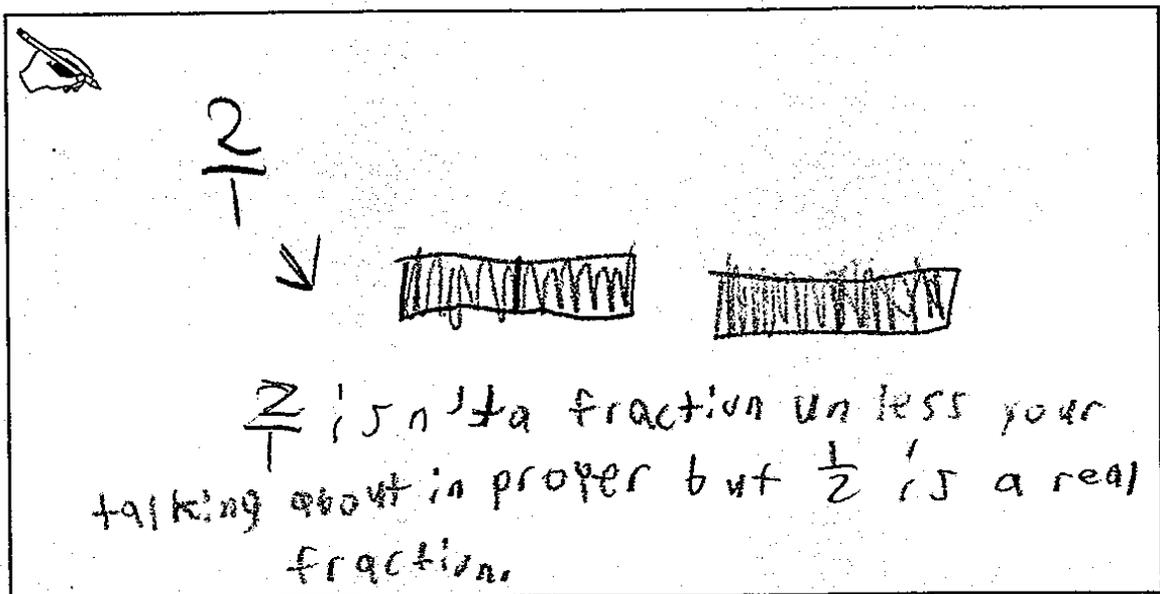
- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.

The student's work is contained within a rectangular box. At the top left is a simple drawing of an eye. In the center, the fraction $\frac{5}{6}$ is written above a circled comparison symbol $>$, which is placed above the fraction $\frac{4}{6}$. To the left of this, the fraction $\frac{4}{6}$ is written with a checkmark below it. Below $\frac{4}{6}$ is a number line from 0 to 6 with tick marks at each integer. A bracket above the line spans from 0 to 4, and the fraction $\frac{4}{6}$ is written below the line. To the right of this, the fraction $\frac{5}{6}$ is written with a checkmark below it. Below $\frac{5}{6}$ is another number line from 0 to 6 with tick marks at each integer. A bracket above the line spans from 0 to 5, and the fraction $\frac{5}{6}$ is written below the line. To the right of the number lines is a handwritten explanation: "The denominator is how many in all so if I have $\frac{3}{6}$ and $\frac{5}{6}$ 6 is larger than 3 so 6 will be shorter but if the numerator is larger than 5 $\frac{5}{6}$ is bigger".

Sharing Pizza Task

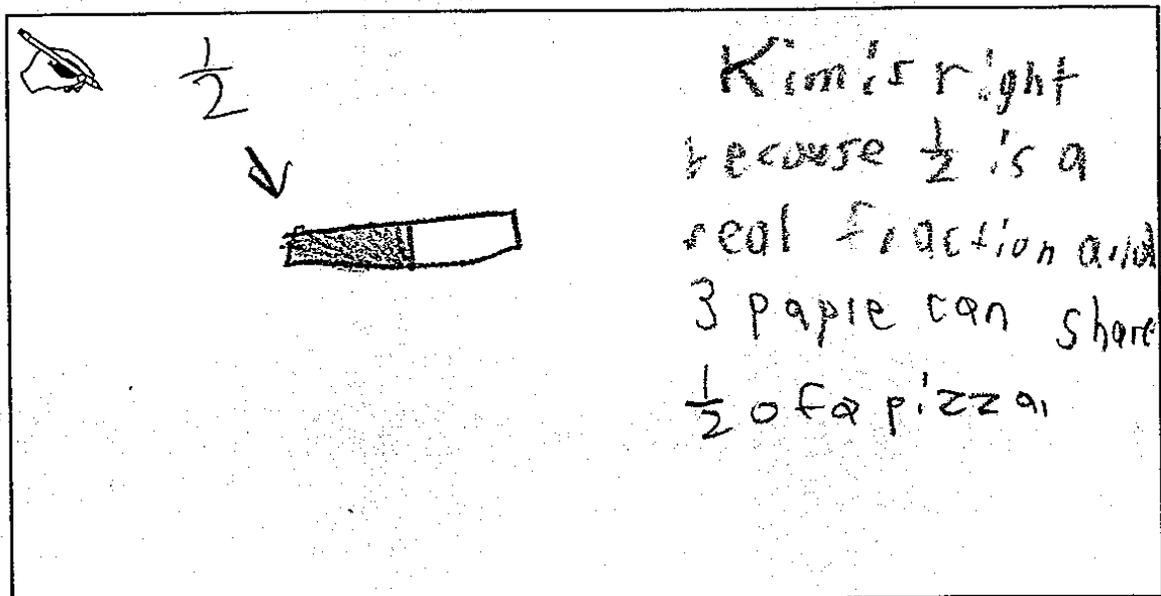
Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.



Hand-drawn diagram for part b. It shows a hand-drawn eye icon in the top left corner. To the right of the eye is the fraction $\frac{2}{1}$. An arrow points from the fraction down to two shaded rectangles, each representing a whole pizza. Below the rectangles, the text reads: "2 is not a fraction unless your talking about in proper but $\frac{1}{2}$ is a real fraction."

- c. Explain with words and a diagram why you agree or disagree with Kim.



Hand-drawn diagram for part c. It shows a hand-drawn eye icon in the top left corner. To the right of the eye is the fraction $\frac{1}{2}$. An arrow points from the fraction down to one shaded rectangle, representing half a pizza. To the right of the rectangle, the text reads: "Kim is right because $\frac{1}{2}$ is a real fraction and 3 people can share $\frac{1}{2}$ of a pizza."

Anchor 3

Litho 00103200145

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 2 (MP4, MP7)

In Part A, the student compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “ $\frac{5}{6} > \frac{4}{6}$,” (3.NF.A.3d). In Part B, the student demonstrates that $\frac{2}{1}$ is 2 whole pizzas by writing “ $\frac{2}{1}$ ” with an arrow pointing to an illustration of 2 wholes (3.NF.A.3c). The student creates accurate number lines showing $\frac{5}{6}$ and $\frac{4}{6}$ in Part A, and diagrams showing $\frac{2}{1}$ in Part B and $\frac{1}{2}$ in Part C (MP4). While the student makes reference to denominators and numerators, one of the fractions is not problem-related ($\frac{3}{5}$), and the explanation is unclear, thus not providing a precise explanation of why one amount is greater than the other amount (no credit for MP6). In Part B, the student indicates that $\frac{2}{1}$ is two wholes with a diagram. In Part C, the student indicates that $\frac{1}{2}$ is less than a whole by creating a diagram showing a whole with only half shaded (MP7).

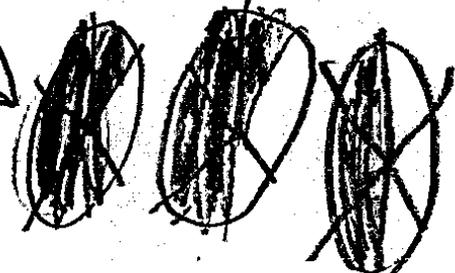
Total Awarded Points: 4 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.

SO Jenny ate more

$$\frac{4}{6} > \frac{3}{6}$$


$$\begin{array}{r} 3 \\ \underline{6} \end{array} < \begin{array}{r} 5 \\ \underline{6} \end{array}$$

$$\begin{array}{r} 4 \\ \underline{6} \end{array} < \begin{array}{r} 5 \\ \underline{6} \end{array}$$

Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.

 I agree with Peter because it goes over a whole. 

- c. Explain with words and a diagram why you agree or disagree with Kim.

 I disagree with Kim because it goes way over a half. 

Anchor 4

Litho 00353200144

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 2 (MP4, MP7)

In Part A, the student compares two fractions with the same denominator by recording the results of several comparisons and showing that Jenny's share was more than Peter's share with the appropriate inequality symbol, writing " $\frac{4}{6} < \frac{5}{6}$ " (3.NF.A.3d). In Part B,

the student indicates that $\frac{2}{1}$ is 2 whole pizzas by agreeing with Peter that the number of pizzas shared can be written as $\frac{2}{1}$ and drawing an illustration of 2 wholes (3.NF.A.3c).

The student creates accurate diagrams showing $\frac{5}{6}$, $\frac{4}{6}$, and $\frac{3}{6}$ in Part A, $\frac{2}{1}$ in Part B, and

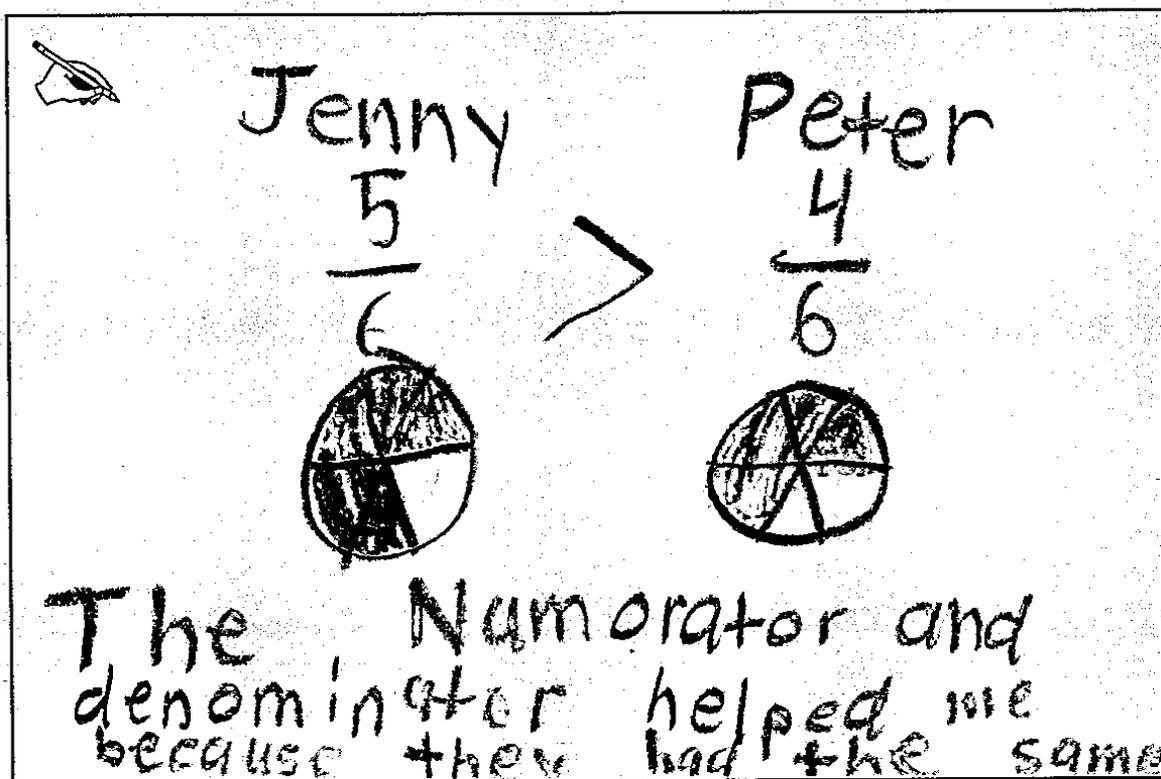
$\frac{1}{2}$ in Part C (MP4). In Part A, by providing only a diagram without explaining further with words the relevance of the numerator and same denominator, the student does not provide a precise explanation of why one amount is greater than the other amount, with reference to the denominators and the numerators of the fractions being compared (no credit for MP6). In Parts B and C respectively, the student indicates in diagrams that $\frac{2}{1}$ is two wholes and that $\frac{1}{2}$ is less than a whole by showing a whole with only half shaded (MP7).

Total Awarded Points: 4 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.



Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.



$$\frac{5}{6} + \frac{4}{6} + \frac{3}{6} = \frac{12}{6}$$


 I agree with Peter because they ate 12 pizzas total and you turn the 12 to a two.

- c. Explain with words and a diagram why you agree or disagree with Kim.


 I disagree with Kim because they ate $\frac{1}{2}$ of the pizza and 12 is the numerator.
 

Anchor 5

Litho 00063200144

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 1 (MP6)

In Part A, the student compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “ $\frac{5}{6} > \frac{4}{6}$,” (3.NF.A.3d). In Part B, the student indicates that $\frac{2}{1}$ is 2 whole pizzas by agreeing with Peter and drawing an illustration of 2 wholes, each divided into sixths, and stating that “they ate 12 pizzas total and you turn the 12 to a two” (3.NF.A.3c). Although the student creates accurate diagrams for $\frac{5}{6}$ and $\frac{4}{6}$ in Part A and $\frac{2}{1}$ in Part B, there is not an accurate diagram showing $\frac{1}{2}$ (no credit for MP4). In Part A, the student indicates a precise explanation of why one amount is greater than the other amount by making reference to the denominators and the numerators of the fractions being compared (“The Numorator and denominator helped me because they had the same denominator so I just looked at the Numorator”) (MP6). The student does not indicate in written explanation or diagram that $\frac{1}{2}$ is less than a whole (no credit for MP7).

Total Awarded Points: 3 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.

because $\frac{5}{6}$ is bigger than $\frac{4}{6}$
 Jenny $>$ Peter
 Jenny $\frac{5}{6}$
 Peter $\frac{4}{6}$
 $\frac{5}{6}$ pizza has one slice left
 $\frac{4}{6}$ pizza has two slices left



Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.

 I agree with Peter because it says that they share two pizza



- c. Explain with words and a diagram why you agree or disagree with Kim.

 I disagree because it said they shared two pizza.



Anchor 6

Litho 00453200107

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 1 (MP7)

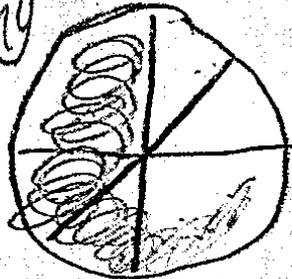
In Part A, the student compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “Jenny > Peter,” which represents the correct relationship between the fractions (3.NF.A.3d). In Part B, the student indicates that $\frac{2}{1}$ is 2 whole pizzas by agreeing with Peter that the number of pizzas shared can be written as $\frac{2}{1}$ and stating that “they share two pizza” (3.NF.A.3c). Although the diagrams in Part A are divided into the correct number of pieces, the pieces are of unequal shape and size, thereby inaccurately modeling $\frac{4}{6}$ and $\frac{5}{6}$ (no credit for MP4). The student does not indicate a precise explanation of why one amount is greater than the other amount, making reference to the denominators and the numerators of the fractions being compared (no credit for MP6). In Part B, the student indicates in a written explanation that $\frac{2}{1}$ is two wholes (“they share two pizza”) and shows a diagram of two whole pizzas (unequal size and shape pieces notwithstanding). In Part C, the student indicates that $\frac{1}{2}$ is less than a whole by creating a diagram showing a whole with only half shaded (MP7).

Total Awarded Points: 3 out of 5

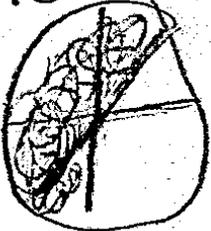
Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.


 Jenny ate $\frac{5}{6}$
 Peter ate $\frac{4}{6}$

$\frac{5}{6} > \frac{4}{6}$
 Peter


 Jenny ate more than Peter. The numerator helped me find out that Jenny ate more than Peter.

Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.

 $\frac{2}{1} = 2$
 I agree with Peter because in all the three friends ate 12 slices of pizza. Each pizza had 6 slices and $6 \times 2 = 12$ so they in all ate 2 pizzas.

- c. Explain with words and a diagram why you agree or disagree with Kim.

 If they only ate half both of the pizzas than they would have only ate 6 slices and each friend would have ate 2 slices.

Anchor 7

Litho 00313200142

Total Content Points: 2 (3.NF.A.3d, 3.NF.A.3c)

Total Practice Points: 0

In Part A, the student compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “ $\frac{5}{6} > \frac{4}{6}$,”

(3.NF.A.3d). In Part B, the student indicates that $\frac{2}{1}$ is 2 whole pizzas (“ $\frac{2}{1} = 2$ ”)

(3.NF.A.3c). The student does not create accurate diagrams showing $\frac{5}{6}$, $\frac{4}{6}$, $\frac{2}{1}$, and $\frac{1}{2}$ (no credit for MP4). While the student does refer to the numerators of the fractions being compared, the explanation is insufficient without reference to the significance of the denominators being the same, thereby not providing a precise explanation of why one amount is greater than the other amount (no credit for MP6). The student does not indicate with a written explanation or diagram that $\frac{1}{2}$ is less than a whole (no credit for MP7).

Total Awarded Points: 2 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

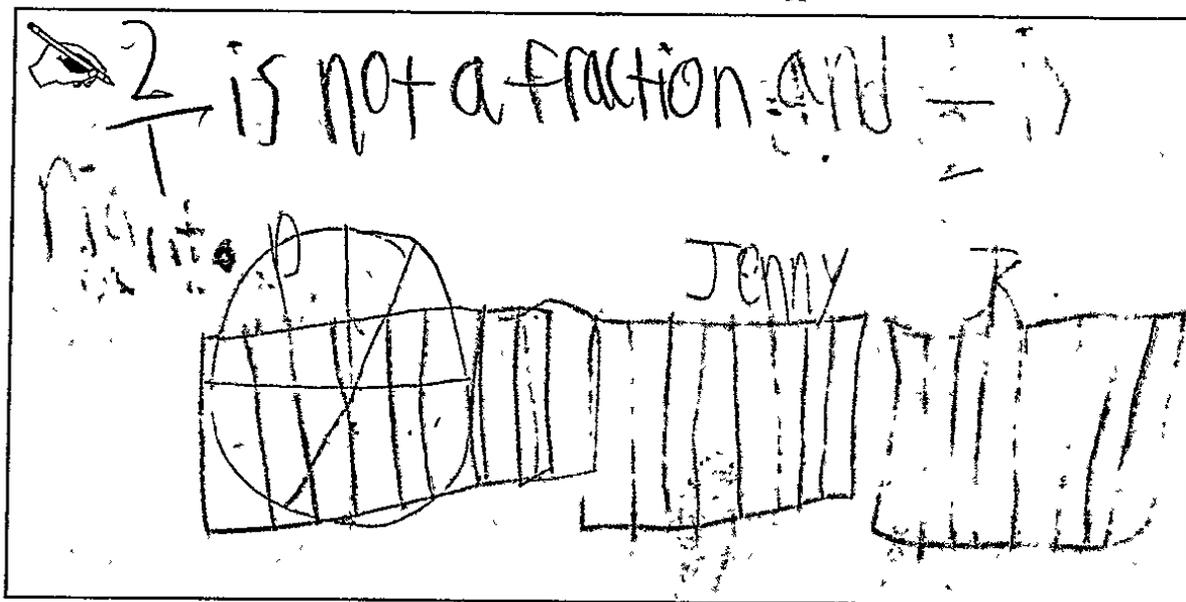
- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.

The student's work is enclosed in a hand-drawn rectangular box. On the left, there is a drawing of a pencil pointing to the fraction $\frac{5}{6}$. Below it is a square divided into six vertical sections, with five sections shaded black. To the right of this is a greater-than sign ($>$). Further right is the fraction $\frac{4}{6}$, with a drawing of a pencil pointing to it. Below it is another square divided into six vertical sections, with four sections shaded black. To the right of these diagrams is the handwritten text: " $\frac{5}{6}$ has a bigger Numerator than $\frac{4}{6}$ ".

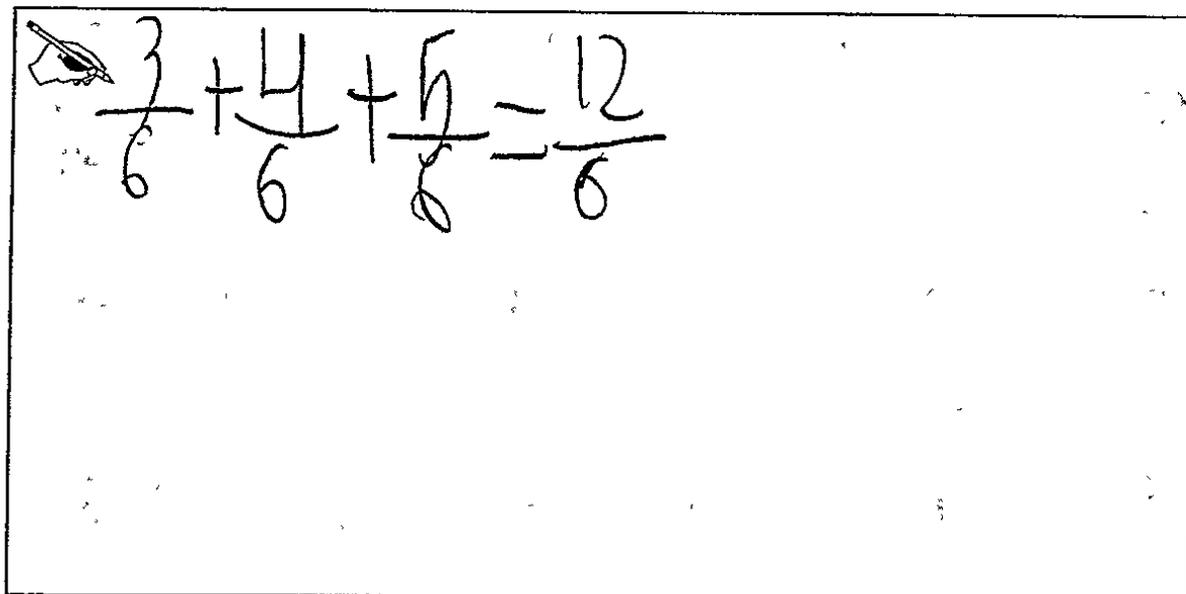
Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.



- c. Explain with words and a diagram why you agree or disagree with Kim.



Anchor 8

Litho 00033200103

Total Content Points: 1 (3.NF.A.3d)

Total Practice Points: 0

In Part A, the student compares two fractions with the same denominator by recording the results of the comparison with the appropriate inequality symbol, writing “ $\frac{5}{6} > \frac{4}{6}$,”

(3.NF.A.3d). In Part B, the student does not indicate that $\frac{2}{1}$ is 2 whole pizzas (no credit

for 3.NF.A.3c). The student does not create accurate diagrams showing $\frac{2}{1}$ and $\frac{1}{2}$

(no credit for MP4). While the student does refer to the numerators of the fractions being compared, the explanation is insufficient without reference to the significance of the denominators being the same, thereby not providing a precise explanation of why one amount is greater than the other amount (no credit for MP6). The student does not

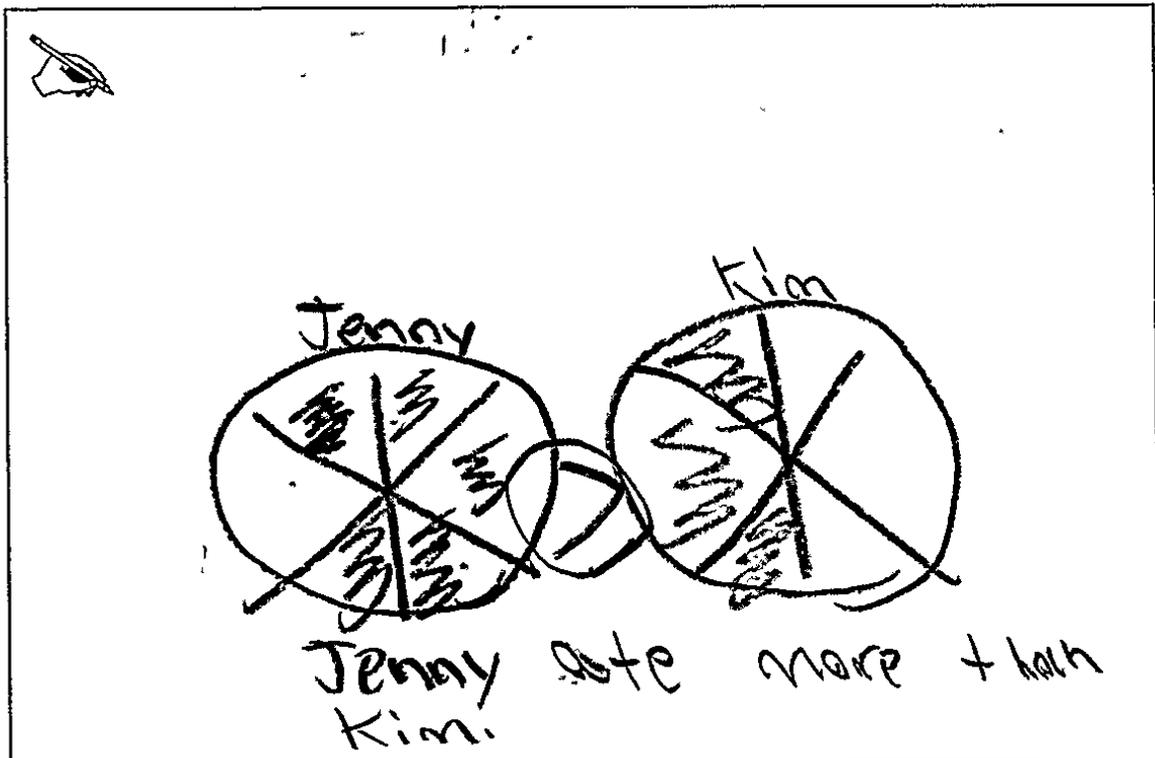
indicate in written explanation or diagram that $\frac{1}{2}$ is less than a whole or that $\frac{2}{1}$ is two wholes (no credit for MP7).

Total Awarded Points: 1 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

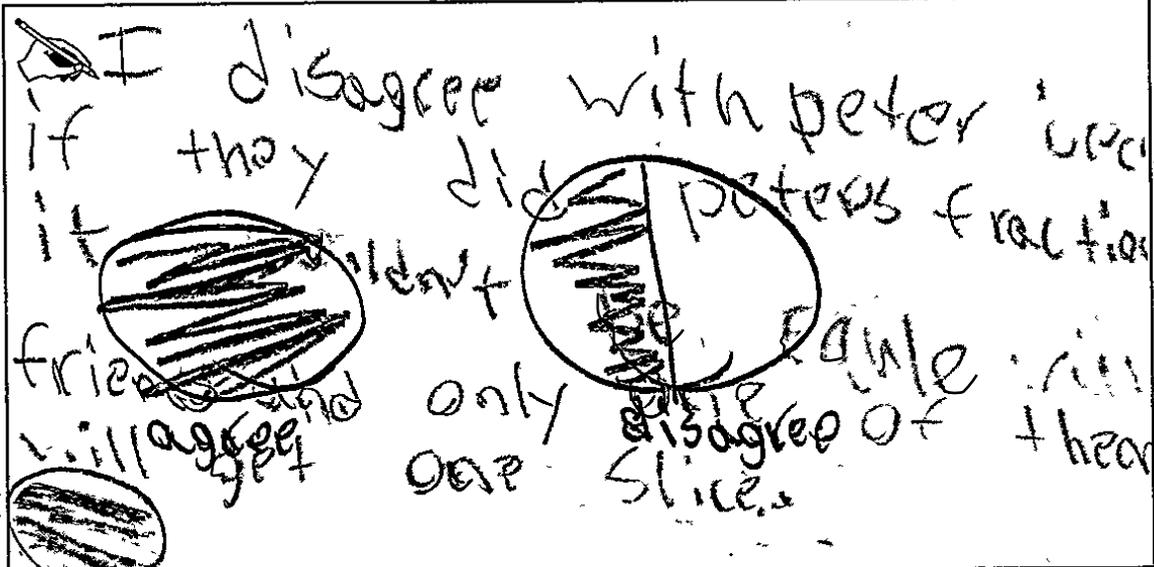
- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.



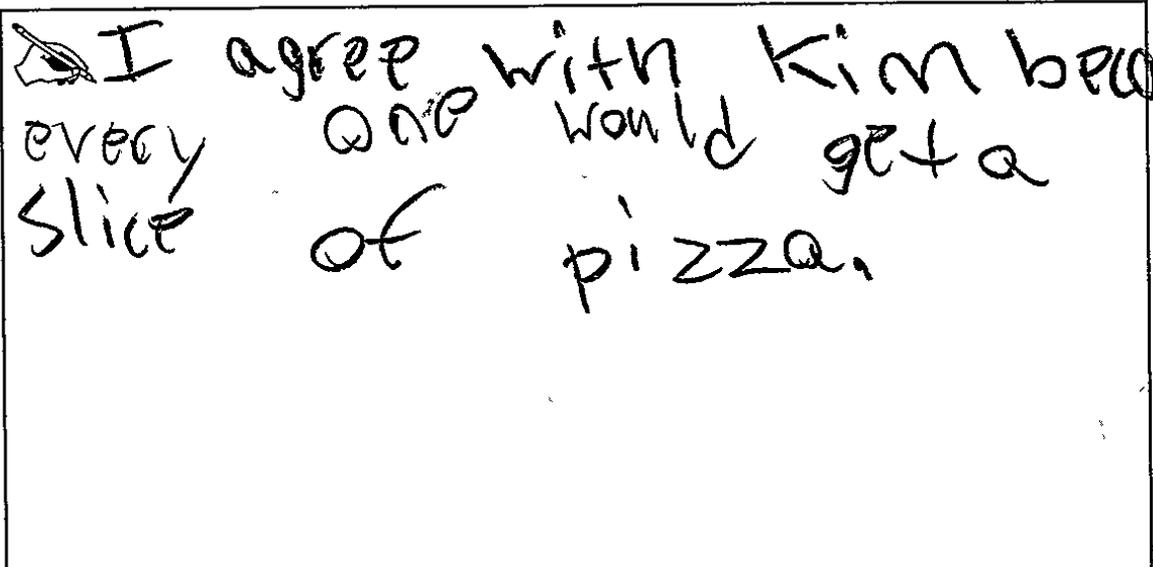
Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

b. Explain with words and a diagram why you agree or disagree with Peter.

I disagree with Peter because if they did it wouldn't be fair. I disagree with his friends who will agree get only one slice. 

c. Explain with words and a diagram why you agree or disagree with Kim.

I agree with Kim because every one would get a slice of pizza. 

Anchor 9

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Total Content Points: 1 (3.NF.A.3d)

Total Practice Points: 0

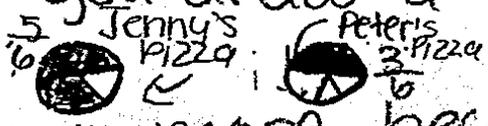
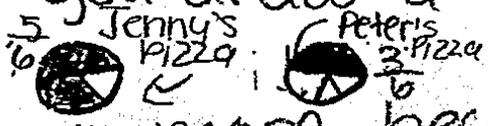
In Part A, the student compares two fractions with the same denominator by drawing a visual fraction model with one part representing the amount Jenny ate $\left(\frac{5}{6}\right)$, and the other part representing the amount Kim ate $\left(\frac{3}{6}\right)$, with a correctly used inequality symbol to represent the relationship between them (3.NF.A.3d). The student does not indicate that $\frac{2}{1}$ is 2 whole pizzas (no credit for 3.NF.A.3c). Though the student creates accurate diagrams showing $\frac{5}{6}$ and $\frac{3}{6}$, there are no clear diagrams representing $\frac{2}{1}$ or $\frac{4}{6}$ (no credit for MP4). The student does not provide any explanation of why one amount is greater than the other amount, making reference to the denominators and the numerators of the fractions being compared (no credit for MP6). The student does not indicate in written explanation or diagram that $\frac{1}{2}$ is less than a whole or that $\frac{2}{1}$ is two wholes (no credit for MP7).

Total Awarded Points: 1 out of 5

Sharing Pizza Task

Jenny, Kim, and Peter share two pizzas that are the same size. Jenny eats $\frac{5}{6}$ of a whole pizza, Kim eats $\frac{3}{6}$ of a whole pizza, and Peter eats $\frac{4}{6}$ of a whole pizza.

- a. Who eats more pizza, Peter or Jenny? Use $<$, $>$, or $=$ to compare the fraction of a pizza Jenny eats with the fraction of a pizza Peter eats. Use diagrams and words to explain how the numerator and denominator of the fractions can help you figure out which student eats more pizza.


 Jenny ate more pizza than Peter because if you look at the fractions it shows that Jenny ate more because $\frac{5}{6}$ is more than $\frac{4}{6}$ if you draw a pizza like this  it shows that Jenny ate more because she only left 1 slice and Peter left 3 slices. $6-5=1$ and $6-3=3$.

Sharing Pizza Task

Peter claims that the number of pizzas the three friends share can be written as $\frac{2}{1}$, but Kim claims the number of pizzas can be written as $\frac{1}{2}$.

- b. Explain with words and a diagram why you agree or disagree with Peter.

 I disagree with Peter because 2 slices of pizza is going to make more pieces but I agree with Kim because 1 whole pizza can be cut into 2 pieces.

- c. Explain with words and a diagram why you agree or disagree with Kim.

 I agree with Kim because 1 whole pizza can be cut into two pizzas.

Total Content Points: 0

Total Practice Points: 0

Although the student states in Part A that “ $\frac{5}{6}$ is more than $\frac{4}{6}$,” the student does not compare two fractions with the same denominator by recording the results of the comparison with the symbols $>$ or $<$ (no credit for 3.NF.A.3d). The student does not state that $\frac{2}{1}$ is 2 whole pizzas (no credit for 3.NF.A.3c). Although the student shows accurate diagrams for $\frac{5}{6}$ and $\frac{3}{6}$, there are no diagrams showing $\frac{2}{1}$ and $\frac{1}{2}$ (no credit for MP4). The student does not indicate a precise explanation of why one amount is greater than the other amount, making reference to the denominators and the numerators of the fractions being compared (no credit for MP6). The student does not indicate in written explanation or diagram that $\frac{1}{2}$ is less than a whole or that $\frac{2}{1}$ is two wholes (no credit for MP7).

Total Awarded Points: 0 out of 5