



Tier 3

Intervention Lessons

4.NF.2

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for 4.NF.3c: Add and subtract mixed numbers with like denominators

Table of Contents

Planning Guide	p. 3
Sessions 1 through 8: Lesson Resources	p. 4-48
Independent Practice Activities: “Whose Fraction is Greater?”	p. 49-53
Classroom Poster: Questions for Solving Word Problems	p. 54
Tier 1 Support Classroom Poster: Steps for Solving Word Problems	p. 55



Tier 3 Intervention Planning Guide

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Recommended Actions	
<p>Beginning (5 min.)</p>	<ul style="list-style-type: none"> ➤ Review the learning target with the whole group ➤ Ask each student to set a goal for the day based on their previous Quick Check Score ➤ Have each student use a highlighter to plot their goal for the day
<p>Middle (15 min.)</p>	<ul style="list-style-type: none"> ➤ Model solving a word problem – “I do” (<i>Sessions 1, 3 and 6 only</i>) ➤ Guided Practice – “We do” <p>Sessions 1 and 2: Use fraction strips to compare fractions with different numerators and denominators</p> <p>Sessions 3, 4 and 5: Use number lines to compare fractions with different numerators and denominators</p> <p>Sessions 6, 7 and 8: Use common denominators to compare fractions with different numerators and denominators</p>
<p>End (10 min.)</p>	<ul style="list-style-type: none"> ➤ Bring the students back together. ➤ Ask students to reflect on their progress towards the learning target <ul style="list-style-type: none"> ○ What did I learn today about comparing fractions with different numerators and denominators? ○ How confident do you feel about comparing fractions with different numerators and denominators on my own? (Thumbs up, down, or sideways) ➤ Assess each student’s progress using the next Quick Check form ➤ Guide students to self-correct their Quick Check ➤ Guide students to chart their progress in their Growth Chart <ul style="list-style-type: none"> ○ If not using Delta Math lessons, record the activity in the table ➤ Collect each student’s Quick Check and Growth Chart
<p>After Session 6</p>	<ul style="list-style-type: none"> ➤ Differentiation Options: <ul style="list-style-type: none"> ○ Allow students who met the learning goal to work independently while others do the guided practice during the next session ○ Exit students who met the learning goal for a third time ➤ Problem solve with a team to plan additional support for students who do not meet the learning goal within 8 sessions



Session 1: Modeling (I Do)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Chris and Maria ran as fast and far as they could before stopping to catch their breath. Chris ran five-eighths of a mile and Maria ran three-fourths of a mile. Who ran further before stopping to catch their breath?

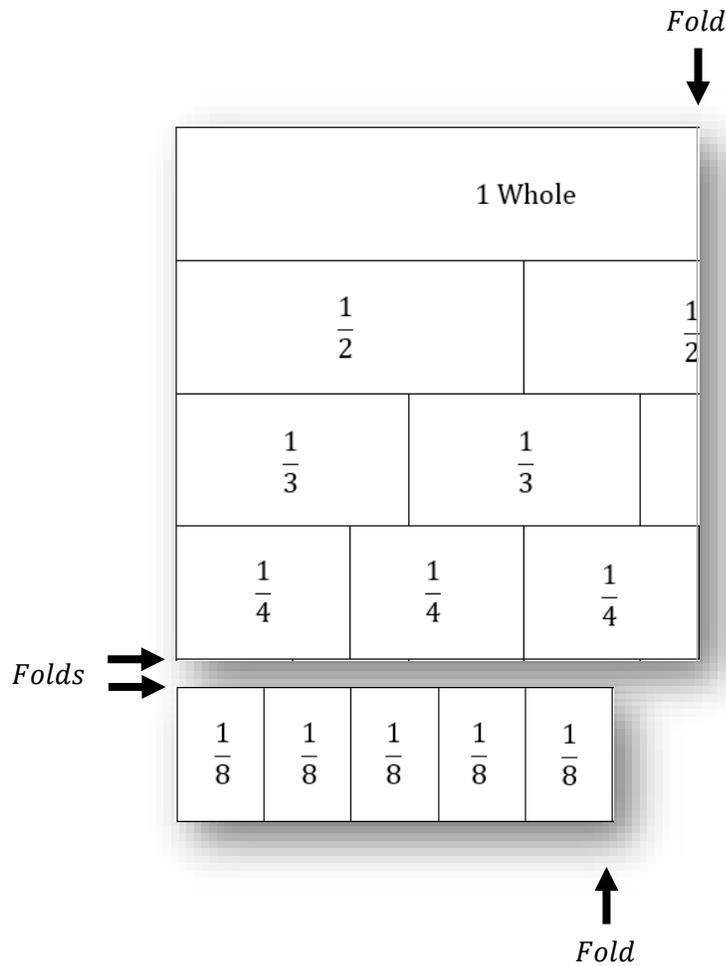


Session 1: Modeling (I Do – Visual Support)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Chris and Maria ran as fast and far as they could before stopping to catch their breath. Chris ran five-eighths of a mile and Maria ran three-fourths of a mile. Who ran further before stopping to catch their breath?



Session 1: Modeling (I Do - Teacher Notes)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Chris and Maria ran as fast and far as they could before stopping to catch their breath. Chris ran five-eighths of a mile and Maria ran three-fourths of a mile. Who ran further before stopping to catch their breath?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

This problem is about Chris and Maria running as fast and far as they could before stopping to catch their breath.

Second, I need to determine what I need to find.

I need to find who ran further.

Third, I need to determine what I know.

I know that Chris ran five-eighths of a mile and Maria ran three-fourths of a mile.

Fourth, I need to figure out what I can try.

I am going to try using fraction strips to find who ran further.

(Hold up two sets of fraction strips)

Since I am comparing five-eighths of a mile to three-fourths of a mile, I am going to find fractions cards to set up the problem.

(Place the fraction cards on the “Modelling” page.)

Now, I will represent five-eighths of a mile using fraction strips by folding the template so that the “eighths” are visible as the bottom row...

then I will fold it again to show five-eighths by hiding one of the eighths.

(Fold the template twice so that three-fourths are visible at the bottom.)

Next, I will represent three-fourths by folding another fraction template so that three-fourths are visible as the top row...

(Fold the other template twice so that three sixths are visible at the top.)

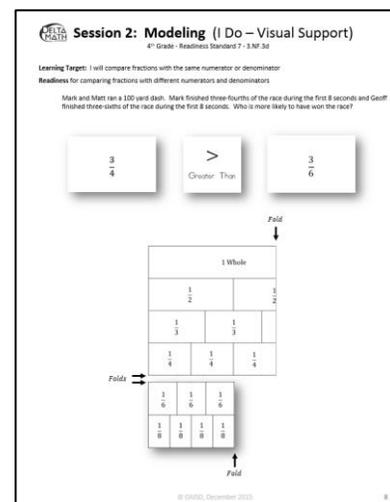
I see that five-eighths of a mile is less than three-fourths.

(Point to the difference between the two lengths and place the “less-than” card between the fraction cards.)

Therefore, I Maria ran further than Chris.

Last, I need to make sure that my answer makes sense.

I found that Maria ran further than Chris. It makes sense because I folded fraction strips to compare the fractional parts of a mile that were ran. I saw that five-eighths was less than three-fourths, so it seems reasonable that Maria ran further.



Session 1: Modeling (I Do - Teacher Notes Cont.)

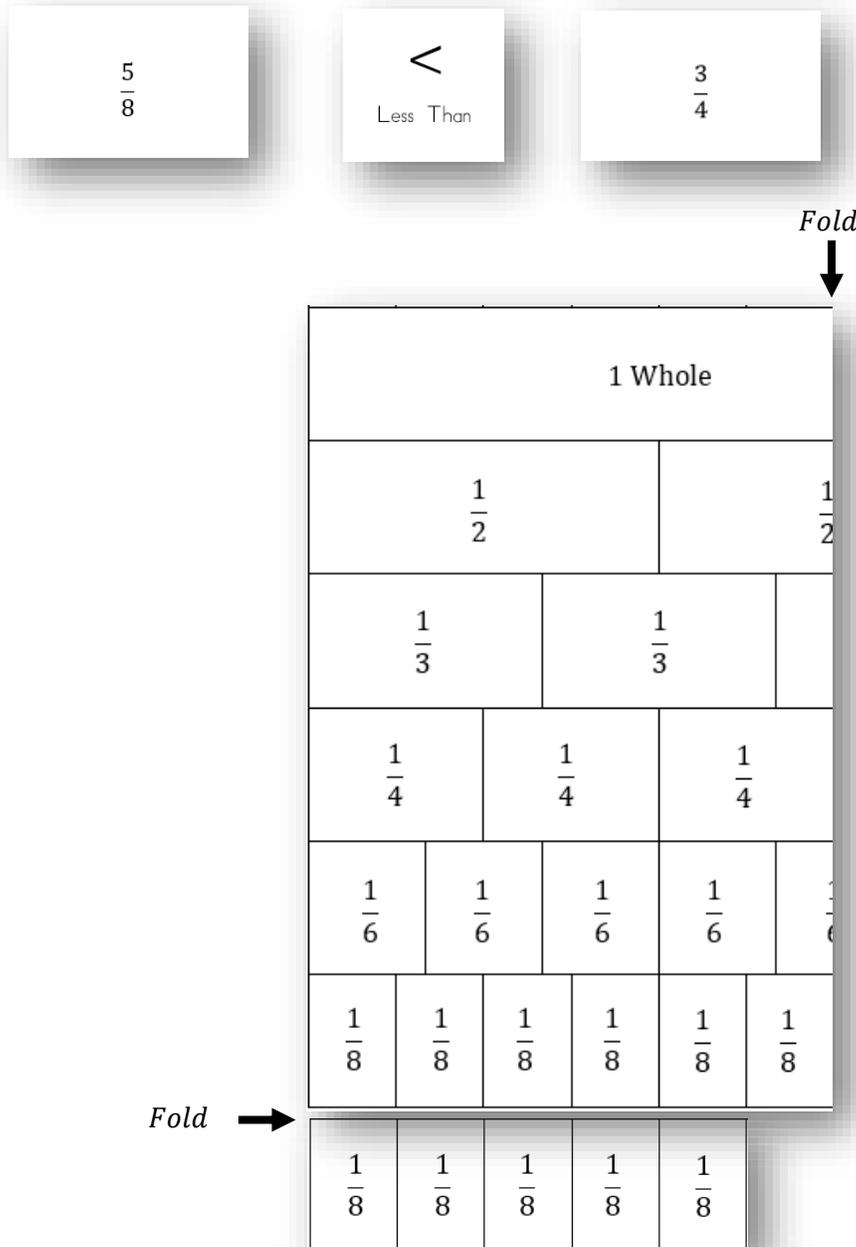
Looking for structure:

I can also show that five-eighths is less than three-fourths by finding an equivalent fraction with a common denominator.

When I unfold my first fraction template, I see that three-fourths is equal to six-eighths.

(Fold the template vertically to show three-fourths and six-eighths)

Since these two fractions are equal, I can use six-eighths in place of three-fourths so that the two fractions we are comparing have the same size parts. Now, all I have to do is compare the number of parts for each fraction...5 is less than 6, so five-eighths is less than six-eighths.





Name _____ Date _____

Learning Target: I will compare two fractions with different numerators and different denominators

Session 1: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use fraction strips to find equivalent fractions with common denominators to compare fractions.

1. $\frac{3}{8}$ _____ $\frac{1}{2}$	2. $\frac{2}{4}$ _____ $\frac{4}{8}$
3. $\frac{2}{3}$ _____ $\frac{3}{6}$	4. $\frac{3}{4}$ _____ $\frac{1}{2}$

You Do Together: (As a class, or in small groups)

- Students take turns leading using fraction strips with common denominators to compare fractions.

5. $\frac{2}{8}$ _____ $\frac{1}{2}$	6. $\frac{2}{3}$ _____ $\frac{1}{2}$
7. $\frac{2}{6}$ _____ $\frac{1}{3}$	8. $\frac{3}{6}$ _____ $\frac{2}{3}$



Modeling & Guided Practice Cards

Use for Problem 1 $\frac{3}{8}$ _____ $\frac{1}{2}$	Use for Problem 2 $\frac{2}{4}$ _____ $\frac{4}{8}$
Use for Problem 3 $\frac{2}{3}$ _____ $\frac{3}{6}$	Use for Problem 4 $\frac{3}{4}$ _____ $\frac{1}{2}$
Use for Problem 5 $\frac{2}{8}$ _____ $\frac{1}{2}$	Use for Problem 6 $\frac{2}{3}$ _____ $\frac{1}{2}$
Use for Problem 7 $\frac{2}{6}$ _____ $\frac{1}{3}$	Use for Problem 8 $\frac{3}{6}$ _____ $\frac{2}{3}$
Use for Modelling $\frac{5}{8}$ _____ $\frac{3}{4}$	



Fraction Strips (4 Sets)

Directions: Each student should receive two sets of strips...do not cut into individual strips. (See example on p. 9, *fold the fraction strips twice to show fractional parts of a whole.*)

1 Whole								1 Whole							
$\frac{1}{2}$				$\frac{1}{2}$				$\frac{1}{2}$				$\frac{1}{2}$			
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$			
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$			
$\frac{1}{6}$															
$\frac{1}{8}$															
1 Whole								1 Whole							
$\frac{1}{2}$				$\frac{1}{2}$				$\frac{1}{2}$				$\frac{1}{2}$			
$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$		$\frac{1}{3}$			
$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$		$\frac{1}{4}$			
$\frac{1}{6}$															
$\frac{1}{8}$															



Session 1: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form A

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{3} \text{ — } \frac{4}{5}$$

2.

$$\frac{1}{4} \text{ — } \frac{4}{12}$$

3.

$$\frac{3}{4} \text{ — } \frac{2}{7}$$

4.

$$\frac{3}{5} \text{ — } \frac{5}{8}$$

5.

$$\frac{1}{3} \text{ — } \frac{3}{9}$$

6.

$$\frac{4}{6} \text{ — } \frac{3}{4}$$

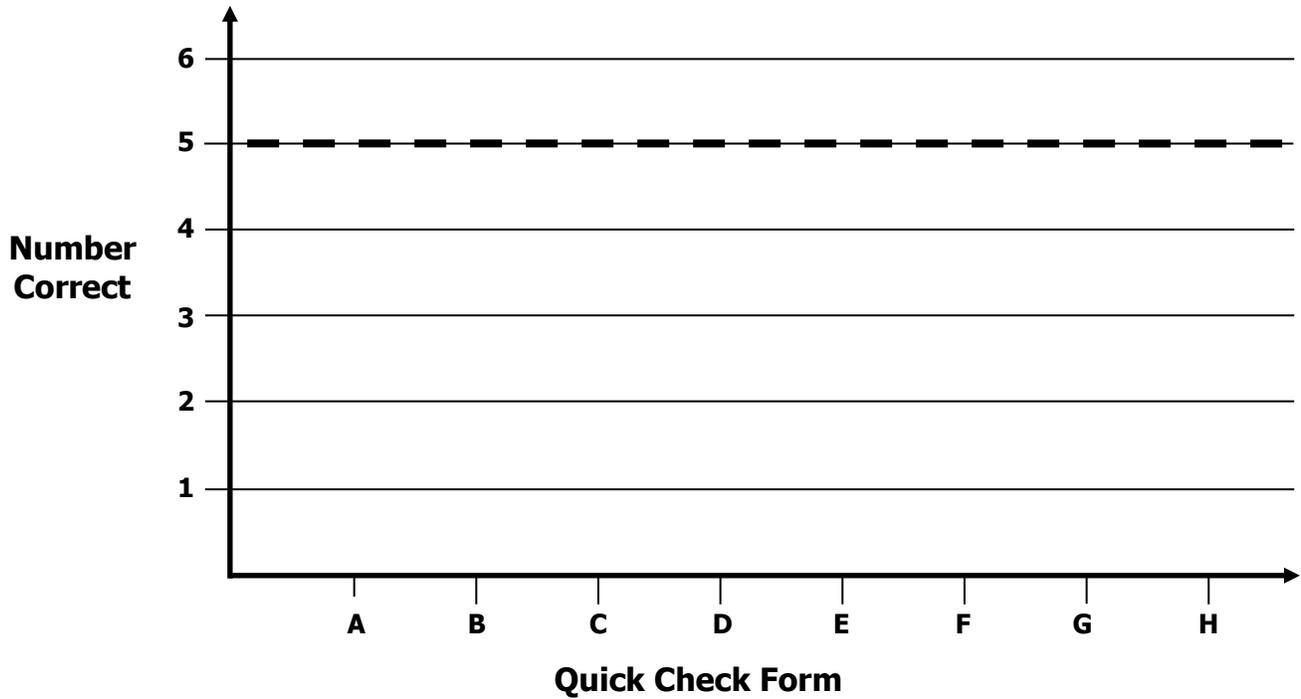


Growth Chart

Name _____ Date _____

Learning Target: I will compare two fractions.

Goal: 5 out of 6 correct



Intervention	Date	Score
Session 1:		
Session 2:		
Session 3:		
Session 4:		
Session 5:		
Session 6:		
Session 7:		
Session 8:		



Name _____

Date _____

Learning Target: I will compare two fractions with different numerators and different denominators

Session 2: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use fraction strips to find equivalent fractions with common denominators to compare fractions.

1. $\frac{1}{2}$ _____ $\frac{2}{8}$	2. $\frac{1}{2}$ _____ $\frac{2}{3}$
3. $\frac{1}{3}$ _____ $\frac{2}{6}$	4. $\frac{2}{3}$ _____ $\frac{3}{6}$

You Do Together: (As a class, or in small groups)

- Students take turns leading using fraction strips with common denominators to compare fractions.

5. $\frac{1}{2}$ _____ $\frac{3}{8}$	6. $\frac{4}{8}$ _____ $\frac{2}{4}$
7. $\frac{3}{6}$ _____ $\frac{2}{3}$	8. $\frac{1}{2}$ _____ $\frac{3}{4}$



Session 2: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form B

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{1}{3} \text{ — } \frac{2}{7}$$

2.

$$\frac{2}{3} \text{ — } \frac{6}{12}$$

3.

$$\frac{3}{5} \text{ — } \frac{4}{7}$$

4.

$$\frac{3}{4} \text{ — } \frac{6}{8}$$

5.

$$\frac{1}{5} \text{ — } \frac{3}{10}$$

6.

$$\frac{5}{6} \text{ — } \frac{3}{4}$$

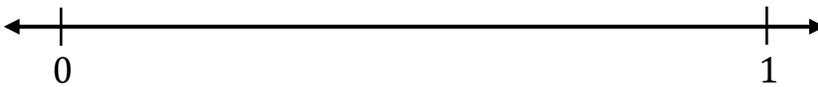
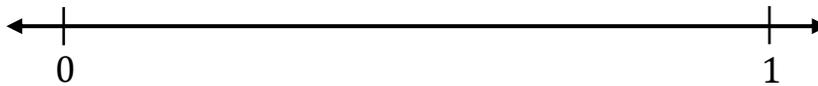


Session 3: Modeling (I Do)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Tonight's weather forecast is predicting one-half of a foot of snow for Grand Rapids, Michigan and five-sixths of a foot for Holland. According to this forecast, which city should expect more snow?





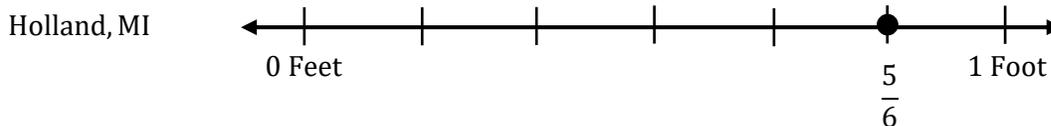
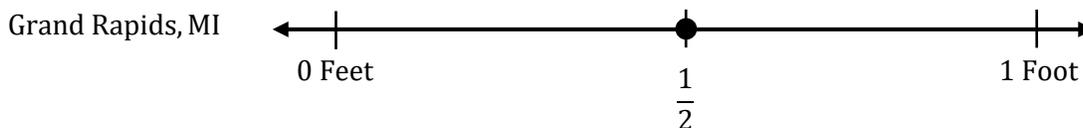
Session 3: Modeling (I Do – Visual Support)

Learning Target: I will compare two fractions with different numerators and different denominators

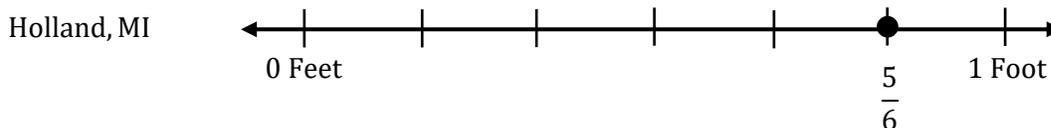
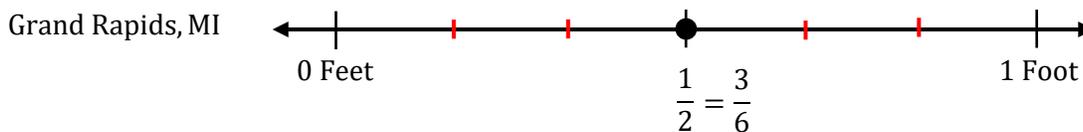
Readiness for adding and subtracting mixed numbers with like denominators

Tonight’s weather forecast is predicting one-half of a foot of snow for Grand Rapids, Michigan and five-sixths of a foot for Holland. According to this forecast, which city should expect more snow?

Snow Fall Predictions



Snow Fall Predictions



Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Tonight’s weather forecast is predicting one-half of a foot of snow for Grand Rapids, Michigan and five-sixths of a foot for Holland. According to this forecast, which city should expect more snow?

I am going to think aloud to model solving this problem.

Your job is to watch, listen, think and ask questions.

First, it is important to know what the problem is about.

This problem is about tonight’s weather forecast.

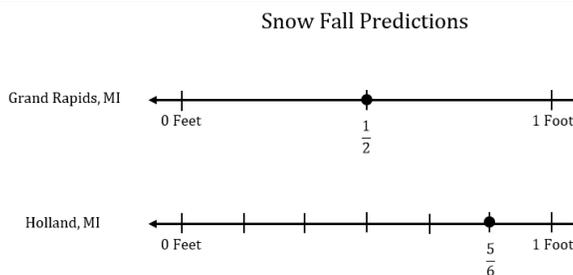
Second, I need to determine what I need to find.

I need to find which city is expecting more snow.

Third, I need to determine what I know.

I know that Grand Rapids, Michigan is expecting one-half of a foot of snow and Holland is expecting five-sixths of a foot of snow.

Fourth, I need to figure out what I can try.



I am going to try using number lines to find common denominators.

(Label the first number line with the title “Grand Rapids, MI” and the second “Holland, MI”.)

I will use the “halves” fraction strip to find one-half on the number line.

(Place the “halves” strip above the line and draw a vertical dash to separate each part. Then, draw a dot and write $\frac{1}{2}$ underneath it.)

I will use the “sixths” fraction strip to find five-sixths of a foot.

(Place the “sixths” strip above the line and draw vertical dashes to separate each part. Then, draw a dot and write $\frac{5}{6}$ underneath it.)

Five-sixths of a foot is located the distance five-sixths from zero, or one-sixth from 1.

(Draw the dot, then write $\frac{5}{6}$ underneath and label it “Holland, MI”.)

I see that one-half of a foot is less than five-sixths because one-half is closer to zero than five-sixths. Therefore, Holland is expecting more snow than Grand Rapids.

(Point to the one-half on the number line.)

(Continued)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Snow Fall Predictions

Grand Rapids, MI

Holland, MI

Although I can compare two fractions visually, I can also do this by finding common denominators.

Anytime one denominator is a multiple of the other, since 2 times 3 is 6, I can break the smaller denominator into the same number of smaller parts.

If I separate each half into 3 equal sections using another color, I now have the whole broken into 6 equal sections.
(Draw vertical marks in red to make 6 equal sections and write the digit "6" in the denominator next to the $\frac{1}{2}$.)

And, the number of parts we have is now three.
(Point to the first 3 parts and write the digit "3" in the numerator next to the $\frac{1}{2}$.)

Now that I have two fractions with the same size parts, I can compare the number of parts represented in each numerator...five-sixths is greater than three-sixths.

Last, I need to make sure that my answer makes sense.

I found that five-sixths is greater than one-half. It makes sense because I drew one-half and five-sixths on a number line and saw that five-sixths is further from zero than one-half. I also found common denominators to use fractions with the same size parts to make it easy to compare!

Learning Target: I will compare two fractions with different numerators and different denominators

Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use number lines to help you use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{3}{8} \quad \underline{\hspace{1cm}} \quad \frac{1}{2}$	
<p>2.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{3}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$	
<p>4.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{4}{5}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 3: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use number lines and common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{5}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{1}{3} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$	
<p>8.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{3}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 3: Guided Practice (We Do – Teacher Notes)

We Do Together: (Teacher Actions)

- Use number lines to help you use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{3}{8} < \frac{1}{2}$ $\frac{3}{8} < \frac{4}{8}$	
<p>2.</p> $\frac{2}{3} > \frac{3}{6}$ $\frac{4}{6} > \frac{3}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{2}{3} > \frac{1}{4}$ $\frac{8}{12} > \frac{3}{12}$	
<p>4.</p> $\frac{3}{4} < \frac{4}{5}$ $\frac{15}{20} < \frac{16}{20}$	



Session 3: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form C

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{5} \text{ — } \frac{1}{3}$$

2.

$$\frac{3}{4} \text{ — } \frac{4}{12}$$

3.

$$\frac{3}{5} \text{ — } \frac{4}{7}$$

4.

$$\frac{2}{3} \text{ — } \frac{8}{12}$$

5.

$$\frac{2}{3} \text{ — } \frac{3}{9}$$

6.

$$\frac{5}{6} \text{ — } \frac{3}{4}$$

Learning Target: I will compare two fractions with different numerators and different denominators

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use number lines to help you use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{7}{8} \quad \underline{\hspace{1cm}} \quad \frac{1}{2}$	
<p>2.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{4}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{1}{3} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$	
<p>4.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{3}{5}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 4: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use number lines and common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{7}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{3}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>8.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{5}$	



Session 4: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form D

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{5} \text{ — } \frac{1}{4}$$

2.

$$\frac{1}{6} \text{ — } \frac{2}{12}$$

3.

$$\frac{5}{6} \text{ — } \frac{4}{7}$$

4.

$$\frac{3}{4} \text{ — } \frac{5}{8}$$

5.

$$\frac{2}{3} \text{ — } \frac{8}{12}$$

6.

$$\frac{5}{8} \text{ — } \frac{3}{4}$$

Learning Target: I will compare two fractions with different numerators and different denominators

Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use number lines to help you use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> <p>$\frac{3}{4}$ _____ $\frac{1}{2}$</p>	
<p>2.</p> <p>$\frac{1}{3}$ _____ $\frac{2}{6}$</p>	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> <p>$\frac{2}{3}$ _____ $\frac{3}{4}$</p>	
<p>4.</p> <p>$\frac{1}{4}$ _____ $\frac{2}{5}$</p>	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 5: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use number lines and common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{4}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{8}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{1}{3} \quad \underline{\hspace{1cm}} \quad \frac{2}{5}$	
<p>8.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{3}$	



Session 5: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form E

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{3} \text{ — } \frac{4}{5}$$

2.

$$\frac{1}{4} \text{ — } \frac{4}{12}$$

3.

$$\frac{3}{4} \text{ — } \frac{2}{7}$$

4.

$$\frac{3}{5} \text{ — } \frac{5}{8}$$

5.

$$\frac{1}{3} \text{ — } \frac{3}{9}$$

6.

$$\frac{4}{6} \text{ — } \frac{3}{4}$$



Session 6: Modeling (I Do)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

On the Delta Math readiness screener, Dominik chose “>” as the answer to the following question:

Which sign compares the two fractions:

$$\frac{5}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$$

>	<	=
---	---	---

Is he correct? If not, what is the correct answer?



Session 6: Modeling (I Do – Teacher Notes)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

On the Delta Math readiness screener, Dominik chose “>” as the answer to the following question
“Which sign compares the two fractions:

$$\frac{5}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$$

>	<	=
---	---	---

Is he correct? If not, what is the correct answer?

I am going to think aloud to model solving this problem....your job is to watch, listen, think and ask questions.

<p>First, it is important to know what the problem is about.</p> <p>This problem is about Dominik answering a comparing fractions problem on a Delta Math readiness screener.</p>
<p>Second, I need to determine what I need to find.</p> <p>I need to find if Dominik chose the correct answer and if not, I need to find the correct answer.</p>
<p>Third, I need to determine what I know.</p> <p>I know that Dominik chose the greater-than sign.</p>
<p>Fourth, I need to figure out what I can try.</p> <p>I am going to try finding common denominators to compare the fractions and see if Dominik’s answer is correct.</p> <div style="text-align: right; margin-right: 50px;"> $\frac{5}{8} \quad \underline{\hspace{1cm}} \quad \frac{3 \times 2}{4 \times 2} = \frac{6}{8}$ </div> <p>Since one denominator is a multiple of the other, I can break the smaller denominator into the same number of parts as the other.</p> <p>I need to double the number of fourths to get the same size parts as eighths. <i>(Write x 2 next to the denominator, 4)</i></p> <p>And, since I had three-fourths, I need to double the three to find how many eighths are equal to three-fourths. <i>(Write x 2 next to the numerator, 3)</i></p> <p>By multiplying the denominator and numerator by 2, I showed that three-fourths is equal to six-eighths. <i>(Write “= $\frac{6}{8}$” next to the fraction three-fourths.)</i></p> <p>And six-eighths is greater than five-eighths...so three-fourths is greater than five-eighths.</p>
<p>Last, I need to make sure that my answer makes sense.</p> <p>I found that Dominik did not choose the incorrect answer. It makes sense because I used common denominators to find that three-fourths is equal to six eighths so that I could compare two fractions that have parts that are the same size.</p>

Learning Target: I will compare two fractions with different numerators and different denominators

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use common denominators to compare fractions. Then use number lines to check your work.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{3}{8} \quad \underline{\hspace{1cm}} \quad \frac{1}{2}$	
<p>2.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{3}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$	
<p>4.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{4}{5}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 6: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{3}{8} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{4}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$	
<p>8.</p> $\frac{1}{4} \quad \underline{\hspace{1cm}} \quad \frac{2}{3}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 6: Guided Practice (We Do – Teacher Notes)

We Do Together: (Teacher Actions)

- Use common denominators to compare fractions. Then use number lines to check your work.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> <p style="color: red;"><i>Multiply each half by 4</i></p> $\frac{3}{8} < \frac{1 \times 4}{2 \times 4} = \frac{4}{8}$ <p style="color: red;"><i>Three-eighths is less than four-eighths</i></p>	<p style="color: red;"><i>Separate each half into 4 equal parts</i></p>
<p>2.</p> <p style="color: red;"><i>Multiply each third by 2</i></p> $\frac{4}{6} = \frac{2 \times 2}{2 \times 3} > \frac{3}{6}$ <p style="color: red;"><i>Four-sixths is greater than three-sixths</i></p>	<p style="color: red;"><i>Separate each third into 2 equal parts</i></p>

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> <p style="color: red;"><i>Multiply each third by 4</i></p> <p style="color: red;"><i>Multiply each fourth by 3</i></p> $\frac{8}{12} = \frac{4 \times 2}{4 \times 3} > \frac{1 \times 3}{4 \times 3} = \frac{3}{12}$ <p style="color: red;"><i>Eight-twelfths is greater than three-twelfths</i></p>	
<p>4.</p> <p style="color: red;"><i>Multiply each fourth by 5</i></p> <p style="color: red;"><i>Multiply each fifth by 4</i></p> $\frac{15}{20} = \frac{5 \times 3}{5 \times 4} < \frac{4 \times 4}{5 \times 4} = \frac{16}{20}$ <p style="color: red;"><i>Fifteen-twentieths is less than sixteen-twentieths</i></p>	



Session 6: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form F

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{1}{3} \text{ — } \frac{2}{7}$$

2.

$$\frac{2}{3} \text{ — } \frac{6}{12}$$

3.

$$\frac{3}{5} \text{ — } \frac{4}{7}$$

4.

$$\frac{3}{4} \text{ — } \frac{6}{8}$$

5.

$$\frac{1}{5} \text{ — } \frac{3}{10}$$

6.

$$\frac{5}{6} \text{ — } \frac{3}{4}$$

Learning Target: I will compare two fractions with different numerators and different denominators

Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use common denominators to compare fractions. Then use number lines to check your work.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{3}{8} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$	
<p>2.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{3}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{3}{5}$	
<p>4.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{4}{6}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 7: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{5}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{1}{3} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$	
<p>8.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{3}$	



Session 7: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form G

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{5} \text{ — } \frac{1}{3}$$

2.

$$\frac{3}{4} \text{ — } \frac{4}{12}$$

3.

$$\frac{3}{5} \text{ — } \frac{4}{7}$$

4.

$$\frac{2}{3} \text{ — } \frac{8}{12}$$

5.

$$\frac{2}{3} \text{ — } \frac{3}{9}$$

6.

$$\frac{5}{6} \text{ — } \frac{3}{4}$$

Learning Target: I will compare two fractions with different numerators and different denominators

Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Use common denominators to compare fractions. Then use number lines to check your work.

Problem type A: One denominator is a multiple of the other.

<p>1.</p> $\frac{7}{8} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>2.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{4}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>3.</p> $\frac{1}{3} \quad \underline{\hspace{1cm}} \quad \frac{2}{4}$	
<p>4.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{4}{5}$	

Learning Target: I will compare two fractions with different numerators and different denominators

Session 8: Guided Practice (We Do - Continued)

You Do Together: (As a class, or in small groups)

- Students take turns leading to use common denominators to compare fractions.

Problem type A: One denominator is a multiple of the other.

<p>5.</p> $\frac{3}{8} \quad \underline{\hspace{1cm}} \quad \frac{1}{4}$	
<p>6.</p> $\frac{1}{2} \quad \underline{\hspace{1cm}} \quad \frac{2}{6}$	

Problem type B: One denominator is NOT a multiple of the other.

<p>7.</p> $\frac{2}{3} \quad \underline{\hspace{1cm}} \quad \frac{3}{4}$	
<p>8.</p> $\frac{3}{4} \quad \underline{\hspace{1cm}} \quad \frac{2}{3}$	



Session 8: Self-Reflection

Learning Target: I will compare two fractions with different numerators and different denominators

Briefly discuss student responses:

- What did I learn today about comparing fractions with different numerators and different denominators?

- How confident do I feel about comparing fractions with different numerators and different denominators on my own?
(Thumbs up, down, or sideways)



Quick Check - Form H

Name _____ Date _____

Learning Target: I will compare two fractions.

Directions: Fill in the blank. (>, <, =)

(Work time: 5 minutes)

1.

$$\frac{2}{5} \text{ — } \frac{1}{4}$$

2.

$$\frac{1}{6} \text{ — } \frac{2}{12}$$

3.

$$\frac{5}{6} \text{ — } \frac{4}{7}$$

4.

$$\frac{3}{4} \text{ — } \frac{5}{8}$$

5.

$$\frac{2}{3} \text{ — } \frac{8}{12}$$

6.

$$\frac{5}{8} \text{ — } \frac{3}{4}$$



Independent Practice (You Do)

Learning Target: I will compare two fractions with different numerators and different denominators

Readiness for adding and subtracting mixed numbers with like denominators

Title of Game: Play “Whose fraction is Greater?”

Number of Players: 2

Objective: To be the player with the most (or least) cards at the end of the game.

Materials:

- 1 set of fraction-cards per player (Player 1 – Set A and Player 2 – Set B.)
- 1 recording sheet per player

Directions:

- Each player turns over their top card. Both players write the fraction on their recording sheet
- Both players write each fraction on their recording sheet and uses common denominators to compare the two fractions.
- The player with the greater fraction writes the correct inequality sign and says,
“My fraction ___ is greater than ___, because ____.”
- The player with the greater fraction takes both cards
- Repeat until all cards have been played

Decide the Winner:

- At the end of the game, the teacher flips a coin
 - If the coin lands **heads up**, the winner is the player with the **greater** number of cards
 - If the coin lands **tails up**, the winner is the player with the **lesser** number of cards

Accessibility Option:

- Use the optional recording sheet for students requiring visual support for verifying answers. (p. 31 and 32)



Names _____

Date _____

Learning Target: I will compare two fractions with different numerators and different denominators

Independent Practice: Whose Fraction is Greater?

(Recording Sheet)

Directions:

- Each player turns over their top card. Both players write the fraction on their recording sheet
- Both players write each fraction on their recording sheet and uses common denominators to compare the two fractions.
- The player with the greater fraction writes the correct inequality sign and says,

“My fraction ___ is greater than ___, because ____.”
- The player with the greater fraction takes both cards
- Repeat until all cards have been played

Round 1 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>	Round 2 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>
Round 3 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>	Round 4 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>
Round 5 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>	Round 6 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>
Round 7 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>	Round 8 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>
Round 9 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>	Round 10 <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">_____ Player 1</div> <div style="text-align: center;">_____ Player 2</div> </div>



"Whose Greater?" Fraction Cards (2 Sets)

Set A		same as		Set B	
Set A $\frac{3}{4}$	Set A $\frac{3}{6}$	Set B $\frac{3}{4}$	Set B $\frac{3}{6}$		
Set A $\frac{2}{3}$	Set A $\frac{2}{6}$	Set B $\frac{2}{3}$	Set B $\frac{2}{6}$		
Set A $\frac{2}{2}$	Set A $\frac{3}{8}$	Set B $\frac{2}{2}$	Set B $\frac{3}{8}$		
Set A $\frac{1}{4}$	Set A $\frac{1}{2}$	Set B $\frac{1}{4}$	Set B $\frac{1}{2}$		
Set A $\frac{2}{4}$	Set A $\frac{1}{3}$	Set B $\frac{2}{4}$	Set B $\frac{1}{3}$		
Set A $\frac{5}{8}$	Set A $\frac{5}{6}$	Set B $\frac{5}{8}$	Set B $\frac{5}{6}$		
Set A <	Set A >	Set A =	Set B <	Set B >	Set B =
Less Than	Greater Than	Equal to	Less Than	Greater Than	Equal to
Set A	Set A	Set A	Set B	Set B	Set B



Questions for Solving Word Problems

Q_1

What is the problem about?

Q_2

What do I need to find?

Q_3

What do I know?

Q_4

What can I try?

Q_5

Does my answer make sense?



Steps for Solving Word Problems

Q₁. What is the problem about?

Q₂. What do I need to find?

Q₃. What do I know?

Q₄. What can I try?

Q₅. Does my answer make sense?