4ᵗʰ Grade
Tier 2 Intervention Lessons

Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or same denominator

Readiness for 4.NF.2: Compare fractions with different numerators and denominators

Table of Contents

IES Recommendations for Tier 2 and 3 intervention lessons:

2. Instructional materials for students receiving interventions should focus intensely on in-depth treatment of whole numbers in kindergarten through grade 5 and on rational numbers in grades 4 through 8. These materials should be selected by committee.	Low
3. Instruction during the intervention should be explicit and systematic. This includes providing models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review.	Strong
4. Interventions should include instruction on solving word problems that is based on common underlying structures.	Strong
5. Intervention materials should include opportunities for students to work with visual representations of mathematical ideas and interventionists should be proficient in the use of visual representations of mathematical ideas.	Moderate
6. Interventions at all grade levels should devote about 10 minutes in each session to building fluent retrieval of basic arithmetic facts.	Moderate
7. Monitor the progress of students receiving supplemental instruction and other students who are at risk.	Low
8. Include motivational strategies in tier 2 and tier 3 interventions.	Low

(Institute of Educational Sciences, Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools, 2009, p. 6)

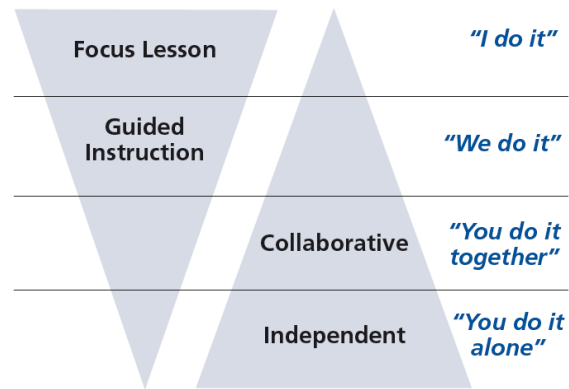# Gradual release of responsibility model

Teacher Responsibility

Focus Lesson	*"I do it"*
Guided Instruction	*"We do it"*
Collaborative	*"You do it together"*
Independent	*"You do it alone"*

Figure 1

[(Dr. Douglas Fisher, Effective Use of the Gradual Release of Responsibility Model)](#)

Planning Guide: Session 1

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

Recommended Actions	
Beginning *(15 min.)*	<u>Review</u> the readiness standard with the intervention group using the **Guided Review** ➤ Introduce the learning target and why it is important for future learning ➤ Read each question on the Guided Review and ask students to share what they remember from the previous school year.

Middle
(5 min.)
	➤ Ask students to <u>reflect</u> on their progress towards the learning target
	  ➤ What did I remember about the learning target?
	  ➤ What did I learn today about the learning target?
	  ➤ How confident do I feel about doing the learning target on my own?

End *(10 min.)*	➤ <u>Assess</u> each student's progress using **Quick Check – Form A** ➤ Guide students to self-correct their **Quick Check – Form A** ➤ Guide students to <u>chart their progress</u> by recording the date and Quick Check score in their **Growth Chart** ➤ Collect each student's Quick Check and Growth Chart

After	➤ Create sub-groups to differentiate the middle of sessions 2 through 8
	  o Group 1 – Include students who <u>did not</u> meet the learning goal
	  o Group 2 – Include students who met or exceeded the learning goal

4th Grade Fall Guided Review

Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

1.

Which sign compares the two fractions?

$$\frac{2}{5} \underline{\hspace{1cm}} \frac{4}{5}$$

◯ >   ◯ <   ◯ =

2.

Which sign compares the two fractions?

$$\frac{1}{2} \underline{\hspace{1cm}} \frac{1}{10}$$

◯ >   ◯ <   ◯ =

3.

Which sign compares the two fractions?

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

◯ >   ◯ <   ◯ =

4ᵗʰ Grade Winter Guided Review

Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

1.

Which sign compares the two fractions?

$$\frac{5}{6} \ _____ \ \frac{3}{6}$$

○ >   ○ <   ○ =

2.

Which sign compares the two fractions?

$$\frac{1}{4} \ _____ \ \frac{1}{2}$$

○ >   ○ <   ○ =

3.

Which sign compares the two fractions?

$$\frac{4}{7} \ _____ \ \frac{4}{5}$$

○ >   ○ <   ○ =

4th Grade Spring Guided Review

Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

1.

Which sign compares the two fractions?

$$\frac{4}{5} \underline{\hspace{2cm}} \frac{3}{5}$$

○ >   ○ <   ○ =

2.

Which sign compares the two fractions?

$$\frac{1}{3} \underline{\hspace{2cm}} \frac{1}{5}$$

○ >   ○ <   ○ =

3.

Which sign compares the two fractions?

$$\frac{5}{7} \underline{\hspace{2cm}} \frac{5}{6}$$

○ >   ○ <   ○ =

Session 1: Self-Reflection
4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

➢ What did I remember today about comparing fractions with the same numerator or denominator?

➢ What did I learn today about comparing fractions with the same numerator or denominator?

➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
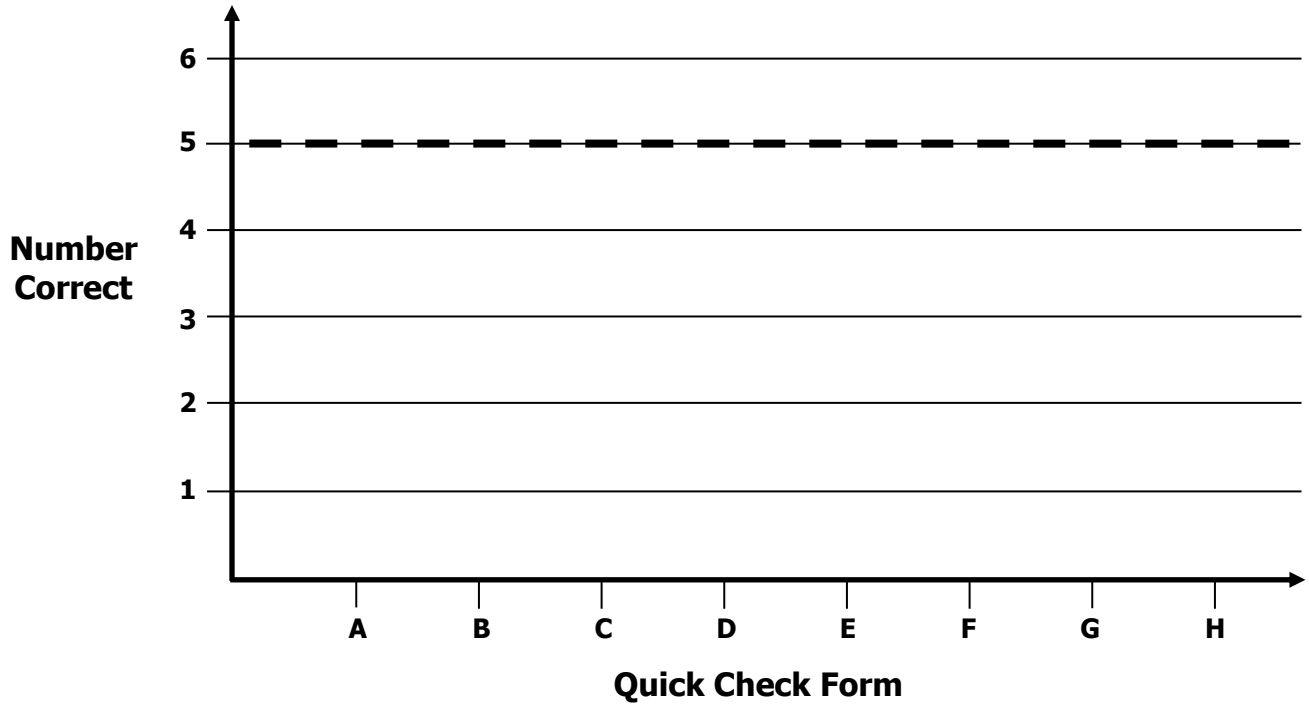*(Thumbs up, down, or sideways)*

Quick Check - Form A

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $$\frac{2}{5} \ \rule{2em}{0.4pt}\ \frac{4}{5}$$	**2.** $$\frac{1}{7} \ \rule{2em}{0.4pt}\ \frac{1}{6}$$
3. $$\frac{3}{4} \ \rule{2em}{0.4pt}\ \frac{3}{8}$$	**4.** $$\frac{2}{8} \ \rule{2em}{0.4pt}\ \frac{3}{8}$$
5. $$\frac{5}{7} \ \rule{2em}{0.4pt}\ \frac{4}{7}$$	**6.** $$\frac{5}{7} \ \rule{2em}{0.4pt}\ \frac{5}{10}$$

Growth Chart

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

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:		

Planning Guide: Sessions 2 Through 8

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

	Recommended Actions	
Beginning (5 min.)	➢ Review the learning target with the whole group and ask each student to set a goal for today's learning	
Middle (15 min.)	**Group 1:** *(Students who <u>did not</u> meet the learning goal on the previous Quick Check)* ➢ Model solving a word problem – "I do" ➢ Guided Practice – "We do together/ You do together" **Session 2:** Use fraction strips to compare fractions with the same numerator or denominator **Session 3:** Draw a number line to compare fractions with the same numerator or denominator **Session 4:** Use fraction sense to compare fractions with the same numerator or denominator	**Group 2:** *(Students who met the learning goal)* ➢ Independent practice – "You do alone" **Activity:** *"Whose Fraction is Greater?"* *(Look for additional activities in 3rd grade core instruction resources.)*

End
(10 min.)
	➢ Bring the students back together.
	➢ Ask students to reflect on their progress towards the learning target
	  o What did I learn today about comparing fractions with the same numerator or denominator?
	  o How confident do you feel about comparing fractions with the same numerator or denominator 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**
	  o If not using Delta Math lessons, record the activity in the table
	➢ Collect each student's **Quick Check** and **Growth Chart**	

After	➢ Regroup students to differentiate the middle of sessions 3 through 8
	  o Promote students who met the learning goal to group 2
	  o Exit students who met the learning goal for a third time
	➢ Problem solve with a team to plan additional support for students who did not exit	

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

Mark and Matt ran a 100 yard dash. Mark finished three-fourths of the race during the first 8 seconds and Matt finished three-sixths of the race during the first 8 seconds. Who is more likely to have won the race?

Session 2: Modeling (I Do – Visual Support)

4th Grade - Readiness Standard 7 - 3.NF.3d

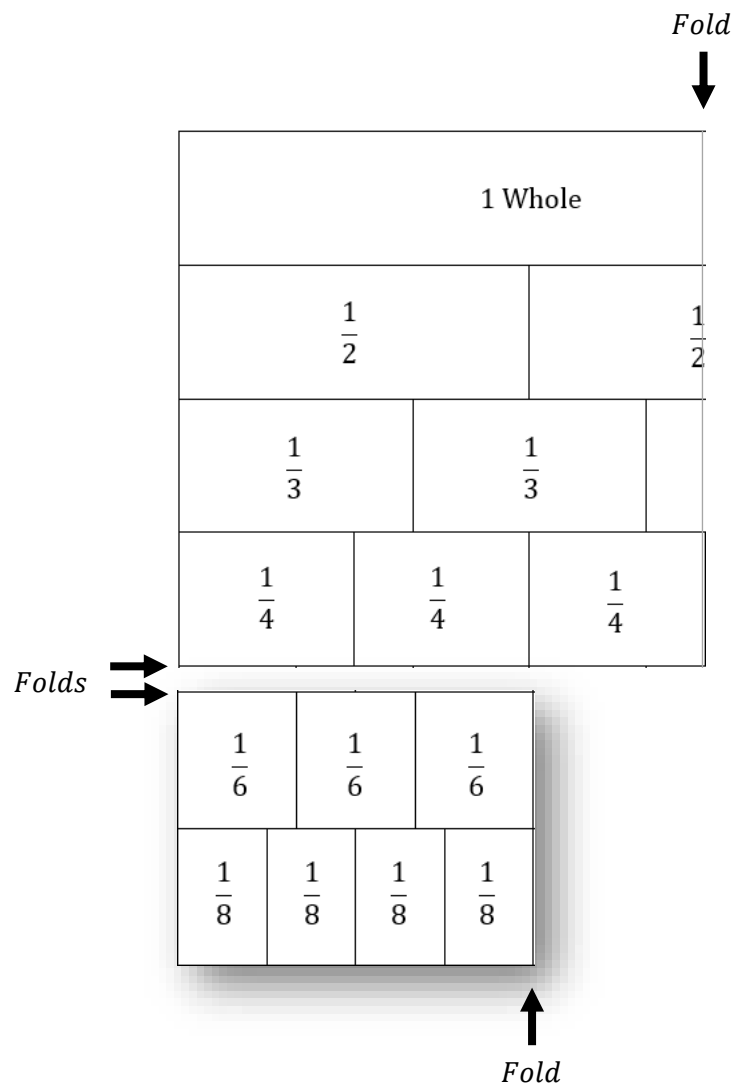**Learning Target:** I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

Mark and Matt ran a 100 yard dash. Mark finished three-fourths of the race during the first 8 seconds and Matt finished three-sixths of the race during the first 8 seconds. Who is more likely to have won the race?

$$\frac{3}{4}$$

$$>$$

Greater Than

$$\frac{3}{6}$$

Fold

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

Folds

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

Fold

Session 2: Modeling (I Do - Teacher Notes)

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

> Mark and Matt ran a 100 yard dash. Mark finished three-fourths of the race during the first 8 seconds and Matt finished three-sixths of the race during the first 8 seconds. Who is more likely to have won the race?

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 Mark and Matt running a race.

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

I need to find who is more likely to have won the race.

Third, I need to determine what I know.

I know that during the first 8 seconds Mark finished 3 fourths of the race and Matt finished 3 sixths.

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

I am going to try using fraction strips to find who was leading the race after the first 8 seconds and if it a large enough lead to predict they would win.
(Hold up two sets of fraction strips)

Since I am comparing 3 fourths of the race to 3 sixths, I am going to find fractions cards to set up the problem.
(Place the fraction cards on the "Modelling" page.)

Now, I will represent 3 fourths using fraction strips by folding the fraction template so that the "fourths" are visible as the bottom row…
then I will fold the template to show 3 fourths by hiding one of the fourths.
(Fold the template twice so that three-fourths are visible at the bottom.)

Next, I will represent 3 sixths by folding another fraction template so that 3 sixths are visible as the top row…
(Fold the other template twice so that 3- sixths are visible at the top.)

I see that 3 fourths of the whole race is much further than 3 sixths.
(Point to the difference between the two lengths.)

Therefore, I think that Mark is more likely to have won the race.

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

I found that Mark is more likely to have won the race. It makes sense because I folded fraction strips to compare the fractional parts of the race that both completed during the first 8 seconds. I saw that Mark ran further than Matt, so it seems reasonable that Mark would have won the race if he didn't trip or slow down.

Name _____ Date _____

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 2: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➢   Use fraction strips to compare fractions.

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

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

➢   Students take turns leading using fraction strips to compare fractions.

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

Fraction Strips (4 Sets)

4th Grade - Readiness Standard 7 - 3.NF.3d

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

Modeling & Guided Practice Cards

4th Grade - Readiness Standard 7 - 3.NF.3d

$$\frac{2}{3} \underline{\hspace{2cm}} \frac{2}{6}$$

$$\frac{3}{4} \underline{\hspace{2cm}} \frac{3}{8}$$

$$\frac{3}{6} \underline{\hspace{2cm}} \frac{3}{3}$$

$$\frac{1}{2} \underline{\hspace{2cm}} \frac{1}{4}$$

$$\frac{3}{4} \underline{\hspace{2cm}} \frac{3}{6}$$

$$\frac{1}{3} \underline{\hspace{2cm}} \frac{2}{3}$$

$$\frac{2}{6} \underline{\hspace{2cm}} \frac{2}{2}$$

$$\frac{5}{6} \underline{\hspace{2cm}} \frac{5}{8}$$

$$\frac{3}{4} \underline{\hspace{2cm}} \frac{3}{6}$$

Session 2: Self-Reflection

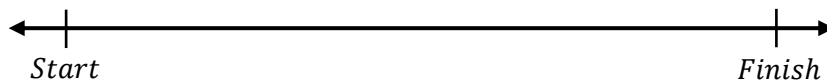4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

> ➢ What did I learn today about comparing fractions with the same numerator or denominator?

> ➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
> *(Thumbs up, down, or sideways)*

Quick Check - Form B

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $\dfrac{1}{2}$ ____ $\dfrac{1}{3}$	**2.** $\dfrac{2}{4}$ ____ $\dfrac{3}{4}$
3. $\dfrac{4}{5}$ ____ $\dfrac{4}{7}$	**4.** $\dfrac{2}{6}$ ____ $\dfrac{3}{6}$
5. $\dfrac{8}{10}$ ____ $\dfrac{7}{10}$	**6.** $\dfrac{3}{7}$ ____ $\dfrac{3}{8}$

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

Ron and Geoff ran a 100 yard dash and one of them tripped at the beginning of the race. Ron finished two-thirds of the race during the first 8 seconds and Geoff finished two-eighths of the race during the first 8 seconds. Who is more likely to have tripped at the beginning of the race?

1 Whole Race

Start   *Finish*
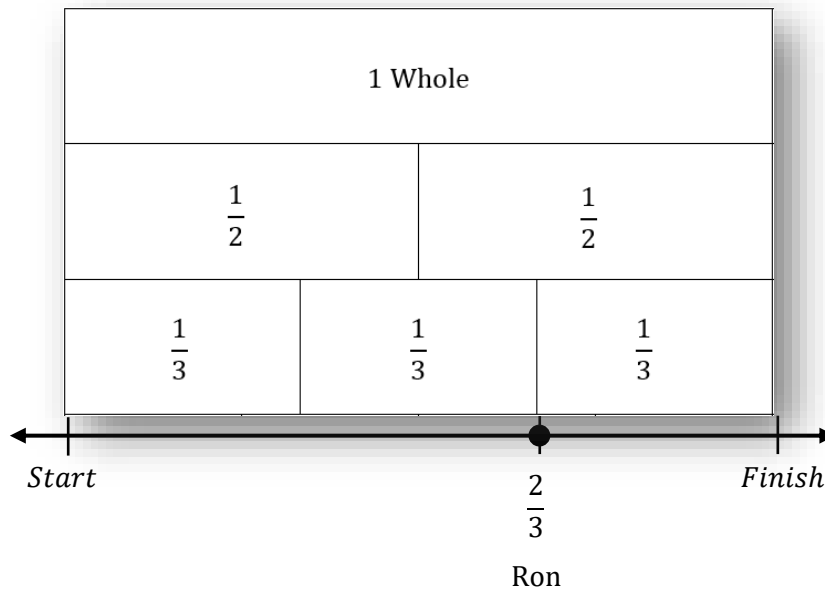
Session 3: Modeling (I Do – Visual Support)

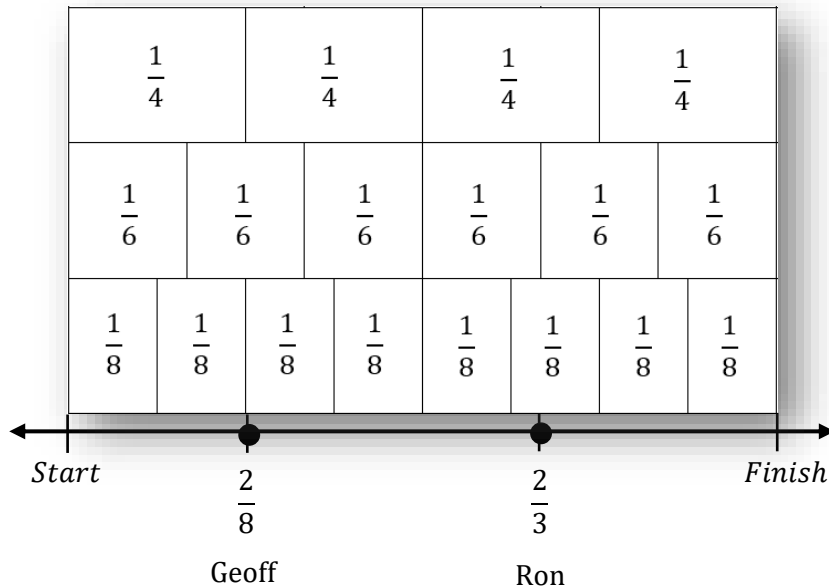**Learning Target:** I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

Ron and Geoff ran a 100 yard dash and one of them tripped at the beginning of the race. Ron finished two-thirds of the race during the first 8 seconds and Geoff finished two-eighths of the race during the first 8 seconds. Who is more likely to have tripped at the beginning of the race?
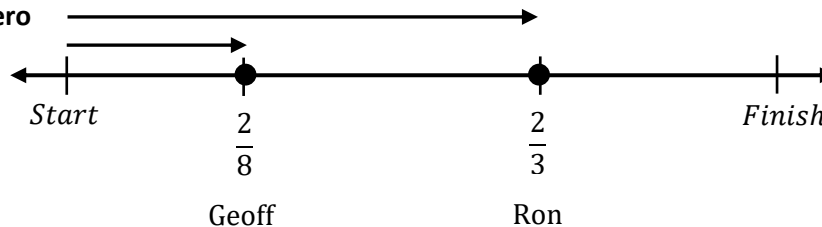
Draw 2 thirds

1 Whole	
$\frac{1}{2}$	$\frac{1}{2}$

$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$

Start $\frac{2}{3}$ *Finish*

Ron

Draw 2 eighths

$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$

$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$

$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$

Start $\frac{2}{8}$ $\frac{2}{3}$ *Finish*

Geoff   Ron

Compare Distances from Zero

Start $\frac{2}{8}$ $\frac{2}{3}$ *Finish*

Geoff   Ron

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

> Ron and Geoff ran a 100 yard dash and one of them tripped at the beginning of the race. Ron finished two-thirds of the race during the first 8 seconds and Geoff finished two-eighths of the race during the first 8 seconds. Who is more likely to have tripped at the beginning of the race?

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 Ron and Geoff running a race.

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

I need to find who is more likely to have tripped at the beginning of the race.

Third, I need to determine what I know.

I know that during the first 8 seconds Ron finished 2 thirds of the race and Geoff finished 2 eighths.

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

I am going to try using fraction strips to find who did not go as far.
(Hold up the set of fraction strips)

I need to find 2 thirds for Ron so I will use the fraction strip made up of thirds to draw the point representing a distance of 2 of them.
(Fold the fraction strips template so that the "thirds" are visible at the bottom, draw a dash mark and point on the number line and label it with $\frac{2}{3}$ and "Ron".)

Next, I need to find 2 eighths for Geoff so I will use the fraction strip made up of eighths to draw the point representing a distance of 2 of them.
(Fold the fraction strips template so that the "eighths" are visible at the bottom, draw a dash mark and point on the number line and label it with $\frac{2}{8}$ and "Geoff".)

I see that 2 eighths of the whole race is shorter than 2 thirds.
(Draw two arrows…from zero to 2-eighths and from zero to 2-thirds.)

Therefore, I think that Geoff is more likely to have tripped than Ron.
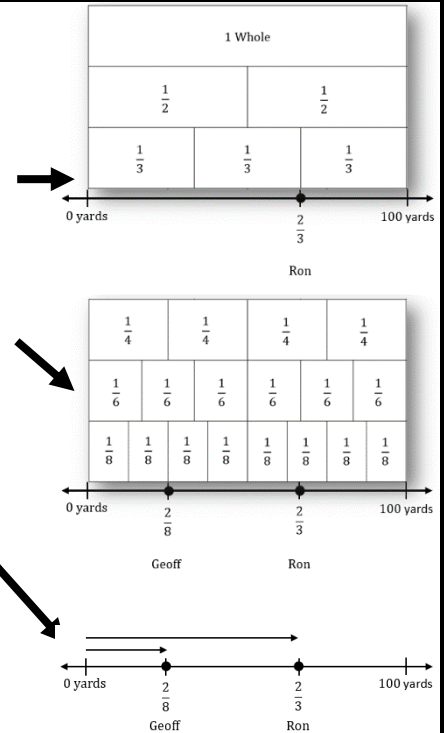
Last, I need to make sure that my answer makes sense.

I found that Geoff is more likely to have tripped than Ron. It makes sense because I used fraction strips to draw Ron and Geoff's distances on the number line. Then, I saw that Geoff ran a distance much shorter than Ron, so it seems reasonable that Geoff tripped which could have kept him from running as far Ron.

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

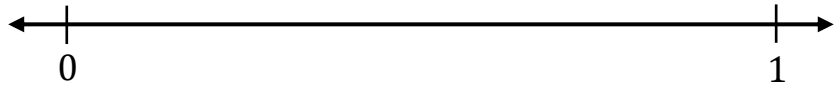# Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➢ Use fraction strips to compare fractions on the number line.

1.

$\dfrac{3}{8}$ _____ $\dfrac{3}{4}$

0   1

2.

$\dfrac{5}{6}$ _____ $\dfrac{3}{6}$

0   1

3.

$\dfrac{4}{8}$ _____ $\dfrac{4}{4}$

0   1

4.

$\dfrac{1}{4}$ _____ $\dfrac{3}{4}$

0   1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 3: Guided Practice (We Do - Continued)

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

> ➤ Students take turns leading using fraction strips to compare fractions on the number line.
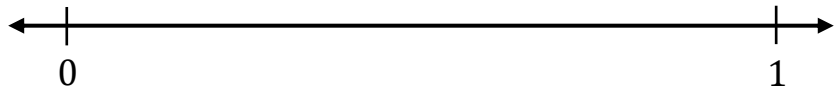
5.

$\dfrac{5}{8}$ _____ $\dfrac{3}{8}$

0   1

6.

$\dfrac{2}{2}$ _____ $\dfrac{2}{6}$

0   1

7.

$\dfrac{4}{6}$ _____ $\dfrac{3}{6}$

0   1

8.

$\dfrac{4}{8}$ _____ $\dfrac{4}{6}$

0   1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

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

We Do Together: (Teacher Actions)

➢   Use fraction strips to mark and label fractions on the number line.

1.

$\dfrac{3}{8}$ _____ $\dfrac{3}{4}$ with $<$

"3 *eighths are less than 3 fourths*"

2.

$\dfrac{5}{6}$ _____ $\dfrac{3}{6}$ with $>$

"5 *sixths are greater than 3 sixths*"

3.

$\dfrac{4}{8}$ _____ $\dfrac{4}{4}$ with $<$

"4 *eighths are less than 4 fourths*"

4.

$\dfrac{1}{4}$ _____ $\dfrac{3}{4}$ with $<$

"1 *fourth is less than 3 fourths*"

Session 3: Self-Reflection
4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

➢ What did I learn today about comparing fractions with the same numerator or denominator?

➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
(Thumbs up, down, or sideways)

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

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

(Work time: 4 minutes)

1. $\dfrac{4}{7}$ ____ $\dfrac{5}{7}$	**2.** $\dfrac{2}{4}$ ____ $\dfrac{2}{5}$
3. $\dfrac{5}{6}$ ____ $\dfrac{5}{10}$	**4.** $\dfrac{3}{5}$ ____ $\dfrac{4}{5}$
5. $\dfrac{1}{9}$ ____ $\dfrac{1}{8}$	**6.** $\dfrac{7}{8}$ ____ $\dfrac{6}{8}$

Session 4: Modeling (I Do)

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

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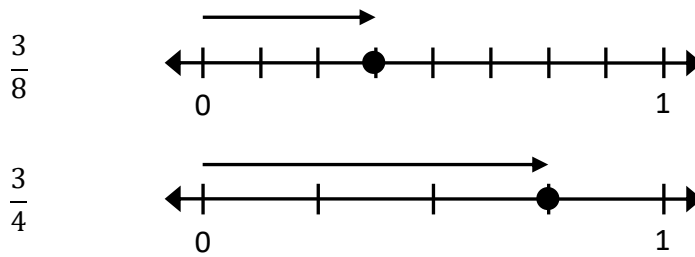
"Which sign compares the two fractions:

$$\frac{3}{8} \underline{\hspace{2cm}} \frac{3}{4}$$

>	<	=

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

Session 4: Modeling (I Do – Visual Support)

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

On the Delta Math readiness screener, Jarod chose ">" as the answer to the following question:

"Which sign compares the two fractions:

3 Parts ← $\frac{3}{8}$ < $\frac{3}{4}$ → **3 Parts**

8 equal parts make 1 whole

4 equal parts make 1 whole

>	<	=

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

Check:

$\frac{3}{8}$

0   1

$\frac{3}{4}$

0   1

Session 4: Modeling (I Do – Teacher Notes)

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and denominators

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

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

>	<	=

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.

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

This problem is about Jarod answering a comparing fractions problem on a Delta Math readiness screener.

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

I need to find if Jarod chose the correct answer and if not, I need to find the correct answer.

Third, I need to determine what I know.

I know that Jarod chose the greater-than sign to complete the inequality 1 eighth is greater than 1 fourth.

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

I am going to try to use my understanding of fractional parts to see if Jarod's answer is correct. If it is not correct, I will circle the correct answer.

Three-eighths means there are 3 parts and one whole is cut into 8 equal pieces.
(Write, "3 parts" next to the numerator of $\frac{3}{8}$ and "8 equal parts make up 1 whole" next to the denominator.)

Three-fourths means there are 3 parts and one whole is cut into 4 equal pieces.
(Write, "3 parts" next to the numerator of $\frac{3}{4}$ and "4 equal parts make up 1 whole" next to the denominator.)

Since both fractions have the value of 3 equal parts, the fraction made up of bigger parts will be the fraction with the greater value.

And, fourths are bigger than eighths…so 3 eighths is less than 3 fourths.
(Write < in the answer space between 3-eighths and 3-fourths.)

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

I found that Jarod chose the incorrect answer. It makes sense because I reasoned that 3 eighths is less 3 fourths because each have the same number of parts, but eighths are smaller than fourths since parts get smaller as you increase the number of equal parts that make up one whole.

To check my answer, I will draw the location of each fraction on a number line. Also, each fraction must refer to the same size whole…so I need to be careful to make both number lines the same length. To draw 3 eighths, I will separate the whole into 8 equal parts…then draw a point 3 parts away from zero. To draw 3 fourths, I will separate the whole into 4 equal parts…then draw a point 3 parts away from zero. 3-eighths (draw the fraction arrow) **looks closer to zero than 3 fourths** (draw the fraction arrow)**…therefore I believe my answer is correct…3 eighths is less than 3 fourths.**

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➢ Use your understanding of fractional parts to compare the fractions. Then, check your work using a number line.

1.

$$\frac{2}{3} \underline{\hspace{2cm}} \frac{2}{4}$$

0   1

0   1

2.

$$\frac{3}{6} \underline{\hspace{2cm}} \frac{1}{6}$$

0   1

0   1

3.

$$\frac{4}{8} \underline{\hspace{2cm}} \frac{4}{4}$$

0   1

0   1

4.

$$\frac{3}{4} \underline{\hspace{2cm}} \frac{3}{6}$$

0   1

0   1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 4: Guided Practice (We Do - Continued)

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

➢ Students take turns leading to compare fractions and check their work using a number line.

5.

$$\frac{2}{5} \ \rule{2cm}{0.4pt} \ \frac{2}{3}$$

0 ———————— 1

0 ———————— 1

6.

$$\frac{3}{8} \ \rule{2cm}{0.4pt} \ \frac{3}{6}$$

0 ———————— 1

0 ———————— 1

7.

$$\frac{2}{4} \ \rule{2cm}{0.4pt} \ \frac{3}{4}$$

0 ———————— 1

0 ———————— 1

8.

$$\frac{1}{2} \ \rule{2cm}{0.4pt} \ \frac{1}{8}$$

0 ———————— 1

0 ———————— 1

9.

$$\frac{6}{8} \ \rule{2cm}{0.4pt} \ \frac{6}{6}$$

0 ———————— 1

0 ———————— 1

10.

$$\frac{2}{3} \ \rule{2cm}{0.4pt} \ \frac{1}{3}$$
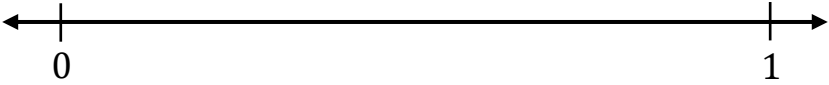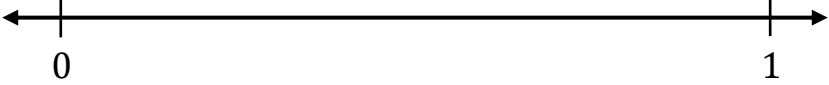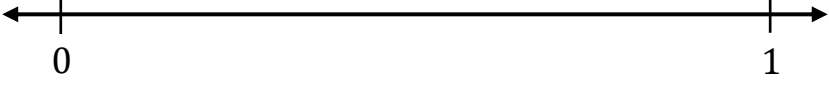
0 ———————— 1

0 ———————— 1

Learning Target: I will compare fractions with the same numerator or denominator   4ᵗʰ Grade - RS 7 - 3.NF.3d

Session 4: Guided Practice (We Do – Teacher Notes)

We Do Together: (Teacher Actions)

➢ Use your understanding of fractional parts to compare the fractions. Then, check your work using a number line.

1.

$$\frac{2}{3} \quad > \quad \frac{2}{4}$$

$\frac{2}{3}$

$\frac{2}{4}$

2.

$$\frac{3}{6} \quad > \quad \frac{1}{6}$$

$\frac{3}{6}$

$\frac{1}{6}$

3.

$$\frac{4}{8} \quad < \quad \frac{4}{4}$$

$\frac{4}{8}$

$\frac{4}{4}$

4.

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

$\frac{3}{4}$

$\frac{3}{6}$

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

> ➢ What did I learn today about comparing fractions with the same numerator or denominator?

> ➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
> *(Thumbs up, down, or sideways)*

Quick Check - Form D

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $$\frac{1}{6} \, \rule{1cm}{0.4pt} \, \frac{1}{7}$$	**2.** $$\frac{3}{5} \, \rule{1cm}{0.4pt} \, \frac{4}{5}$$
3. $$\frac{3}{8} \, \rule{1cm}{0.4pt} \, \frac{4}{8}$$	**4.** $$\frac{2}{3} \, \rule{1cm}{0.4pt} \, \frac{2}{6}$$
5. $$\frac{6}{10} \, \rule{1cm}{0.4pt} \, \frac{6}{7}$$	**6.** $$\frac{9}{10} \, \rule{1cm}{0.4pt} \, \frac{8}{10}$$

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

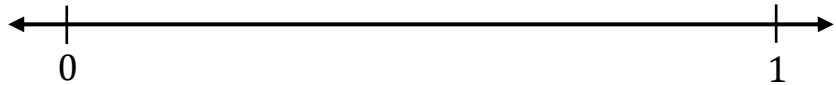# Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➢ Use fraction strips to compare fractions on the number line.

1.

$\dfrac{3}{8}$ _____ $\dfrac{3}{6}$

0   1

2.

$\dfrac{5}{8}$ _____ $\dfrac{3}{8}$

0   1

3.

$\dfrac{3}{8}$ _____ $\dfrac{3}{3}$

0   1

4.

$\dfrac{1}{6}$ _____ $\dfrac{3}{6}$

0   1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 5: Guided Practice (We Do - Continued)

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

➢ Students take turns leading using fraction strips to compare fractions on the number line.

5.

$\dfrac{4}{4}$ _____ $\dfrac{4}{8}$

0 ——————————————————— 1

6.

$\dfrac{2}{2}$ _____ $\dfrac{2}{4}$

0 ——————————————————— 1

7.

$\dfrac{4}{8}$ _____ $\dfrac{3}{8}$

0 ——————————————————— 1

8.

$\dfrac{5}{6}$ _____ $\dfrac{5}{8}$

0 ——————————————————— 1

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

> ➢ What did I learn today about comparing fractions with the same numerator or denominator?

> ➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
> *(Thumbs up, down, or sideways)*

Quick Check - Form E

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $\dfrac{2}{5}$ ___ $\dfrac{4}{5}$	**2.** $\dfrac{1}{7}$ ___ $\dfrac{1}{6}$
3. $\dfrac{3}{4}$ ___ $\dfrac{3}{8}$	**4.** $\dfrac{2}{8}$ ___ $\dfrac{3}{8}$
5. $\dfrac{5}{7}$ ___ $\dfrac{4}{7}$	**6.** $\dfrac{5}{7}$ ___ $\dfrac{5}{10}$

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

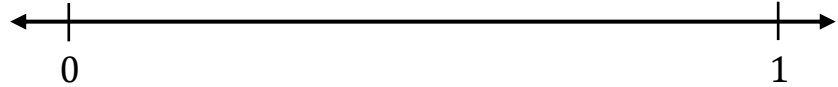➢ Use fraction strips to compare fractions on the number line.

1.

$\frac{1}{8}$ _____ $\frac{1}{4}$
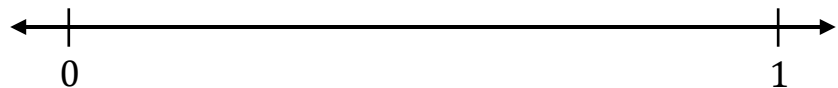
```
<---+------------------------------+--->
    0                              1
```
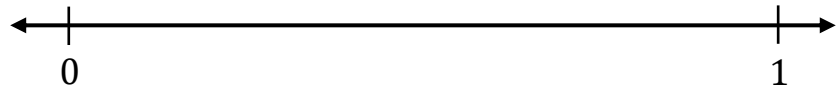
2.

$\frac{2}{6}$ _____ $\frac{4}{6}$

```
<---+------------------------------+--->
    0                              1
```

3.

$\frac{3}{8}$ _____ $\frac{3}{4}$

```
<---+------------------------------+--->
    0                              1
```

4.

$\frac{2}{3}$ _____ $\frac{3}{3}$

```
<---+------------------------------+--->
    0                              1
```

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d
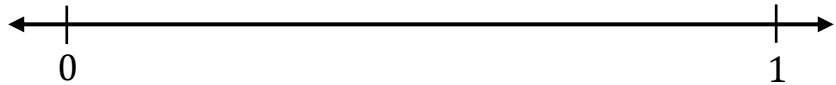
Session 6: Guided Practice (We Do - Continued)

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

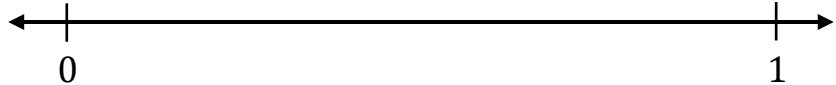➢   Students take turns leading using fraction strips to compare fractions on the number line.

5.

$\frac{5}{8}$ _____ $\frac{3}{8}$

0   1

6.

$\frac{2}{6}$ _____ $\frac{2}{2}$

0   1

7.

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

0   1

8.

$\frac{4}{8}$ _____ $\frac{4}{6}$

0   1

Session 6: Self-Reflection

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

- ➢ What did I learn today about comparing fractions with the same numerator or denominator?

- ➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
  (Thumbs up, down, or sideways)

DELTA MATH
RtI PROGRAM

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $\dfrac{1}{2}$ ___ $\dfrac{1}{3}$	**2.** $\dfrac{2}{4}$ ___ $\dfrac{3}{4}$
3. $\dfrac{4}{5}$ ___ $\dfrac{4}{7}$	**4.** $\dfrac{2}{6}$ ___ $\dfrac{3}{6}$
5. $\dfrac{8}{10}$ ___ $\dfrac{7}{10}$	**6.** $\dfrac{3}{7}$ ___ $\dfrac{3}{8}$

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➤ Use your understanding of fractional parts to compare the fractions. Then, check your work using a number line.

1. $\dfrac{1}{3}$ _____ $\dfrac{1}{4}$ 0 ————————— 1 0 ————————— 1	**2.** $\dfrac{3}{6}$ _____ $\dfrac{5}{6}$ 0 ————————— 1 0 ————————— 1
3. $\dfrac{3}{6}$ _____ $\dfrac{3}{3}$ 0 ————————— 1 0 ————————— 1	**4.** $\dfrac{2}{5}$ _____ $\dfrac{2}{8}$ 0 ————————— 1 0 ————————— 1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 7: Guided Practice (We Do - Continued)

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

 ➢ Students take turns leading to compare fractions and check their work using a number line.

5.

$$\frac{2}{6} \underline{\hspace{1cm}} \frac{2}{3}$$

0 ———————— 1

0 ———————— 1

6.

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

0 ———————— 1

0 ———————— 1

7.

$$\frac{2}{5} \underline{\hspace{1cm}} \frac{3}{5}$$

0 ———————— 1

0 ———————— 1

8.

$$\frac{1}{4} \underline{\hspace{1cm}} \frac{1}{8}$$

0 ———————— 1

0 ———————— 1

9.

$$\frac{3}{8} \underline{\hspace{1cm}} \frac{3}{6}$$

0 ———————— 1

0 ———————— 1

10.

$$\frac{1}{3} \underline{\hspace{1cm}} \frac{2}{3}$$

0 ———————— 1

0 ———————— 1

Session 7: Self-Reflection

4th Grade - Readiness Standard 7 - 3.NF.3d

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

➢ What did I learn today about comparing fractions with the same numerator or denominator?

➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
(Thumbs up, down, or sideways)

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $\dfrac{4}{7}$ ____ $\dfrac{5}{7}$	**2.** $\dfrac{2}{4}$ ____ $\dfrac{2}{5}$
3. $\dfrac{5}{6}$ ____ $\dfrac{5}{10}$	**4.** $\dfrac{3}{5}$ ____ $\dfrac{4}{5}$
5. $\dfrac{1}{9}$ ____ $\dfrac{1}{8}$	**6.** $\dfrac{7}{8}$ ____ $\dfrac{6}{8}$

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

➢ Use your understanding of fractional parts to compare the fractions. Then, check your work using a number line.

1. $\dfrac{3}{3}$ _____ $\dfrac{3}{4}$ 0 ————— 1 0 ————— 1	**2.** $\dfrac{3}{5}$ _____ $\dfrac{1}{5}$ 0 ————— 1 0 ————— 1
3. $\dfrac{4}{8}$ _____ $\dfrac{4}{6}$ 0 ————— 1 0 ————— 1	**4.** $\dfrac{1}{4}$ _____ $\dfrac{1}{2}$ 0 ————— 1 0 ————— 1

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Session 8: Guided Practice (We Do - Continued)

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

➤ Students take turns leading to compare fractions and check their work using a number line.

5.

$$\frac{2}{3} \underline{\quad\quad} \frac{2}{5}$$

6.

$$\frac{3}{6} \underline{\quad\quad} \frac{3}{8}$$

7.

$$\frac{3}{3} \underline{\quad\quad} \frac{2}{3}$$

8.

$$\frac{1}{8} \underline{\quad\quad} \frac{1}{2}$$

9.

$$\frac{5}{8} \underline{\quad\quad} \frac{5}{6}$$

10.

$$\frac{4}{4} \underline{\quad\quad} \frac{4}{8}$$

Learning Target: I will compare fractions with the same numerator or denominator

Briefly discuss student responses:

> ➢ What did I learn today about comparing fractions with the same numerator or denominator?

> ➢ How confident do I feel about comparing fractions with the same numerator or denominator on my own?
> *(Thumbs up, down, or sideways)*

Quick Check - Form H

4th Grade - Readiness Standard 7 - 3.NF.3d

Name_____ Date_____

Learning Target: I will compare fractions with the same numerator or same denominator.

Directions: Fill in the blank. (>, <, =)
(Work time: 4 minutes)

1. $\dfrac{1}{6}$ ___ $\dfrac{1}{7}$	**2.** $\dfrac{3}{5}$ ___ $\dfrac{4}{5}$
3. $\dfrac{3}{8}$ ___ $\dfrac{4}{8}$	**4.** $\dfrac{2}{3}$ ___ $\dfrac{2}{6}$
5. $\dfrac{6}{10}$ ___ $\dfrac{6}{7}$	**6.** $\dfrac{9}{10}$ ___ $\dfrac{8}{10}$

Independent Practice (You Do)

Learning Target: I will compare fractions with the same numerator or denominator

Readiness for comparing fractions with different numerators and 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 *(For easy of sorting, give each player a set copied on different colored paper.)*

➢ 1 recording sheet per player

Directions:

➢ Player 1 turns over their top card and writes their fraction on the recording sheet

➢ Player 2 turns over their top card and writes the fraction on the recording sheet **only if** it has the same numerator or same denominator as Player 1s card.

   o If Player 2's card does not have the same numerator or denominator, place the card at the bottom of the pile and choose the next card.

➢ 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 with Player 2 turning over their top card first until all cards have been played

Decide the Winner:

➢ At the end of the game, the teacher flips a coin

   o If the coin lands **heads up**, the winner is the player with the **greater** number of cards

   o 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. 30 and 31)

Names _____ Date _____

Learning Target: I will compare fractions with the same numerator or denominator   4th Grade - RS 7 - 3.NF.3d

Independent Practice: Whose Fraction is Greater?
(Recording Sheet)

Directions:
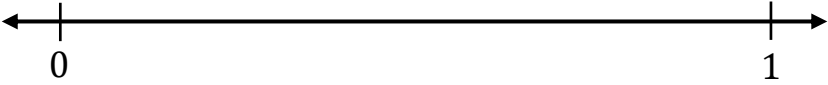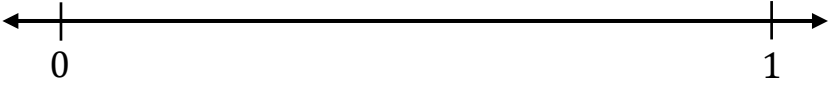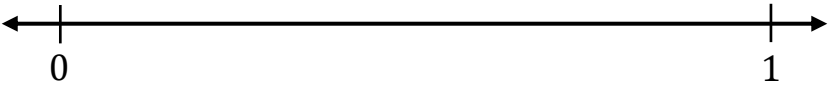
➢ Player 1 turns over their top card and writes their fraction on the recording sheet.

➢ Player 2 turns over their top card and writes the fraction on the recording sheet **only if** it has the same numerator or same denominator as Player 1s card.

  o If Player 2's card does not have the same numerator or denominator, place the card at the bottom of the pile and choose the next card.

➢ 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	**Round 2**
_____ _____ Player 1 Player 2	_____ _____ Player 1 Player 2
Round 3	**Round 4**
_____ _____ Player 1 Player 2	_____ _____ Player 1 Player 2
Round 5	**Round 6**
_____ _____ Player 1 Player 2	_____ _____ Player 1 Player 2
Round 7	**Round 8**
_____ _____ Player 1 Player 2	_____ _____ Player 1 Player 2
Round 9	**Round 10**
_____ _____ Player 1 Player 2	_____ _____ Player 1 Player 2

DELTA MATH — RtI PROGRAM

Independent Practice: Whose Fraction is Greater?

(Recording Sheet – Option 2)

Directions:
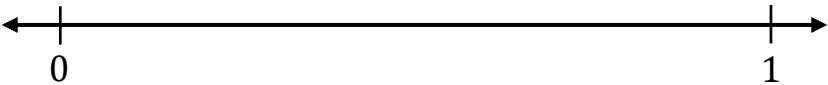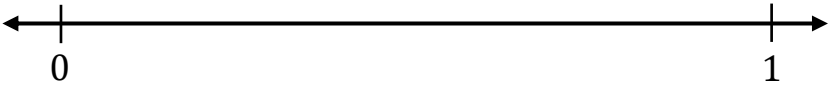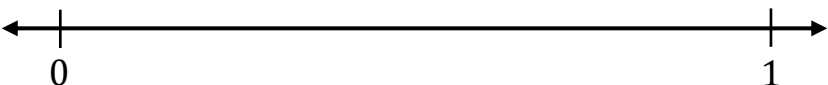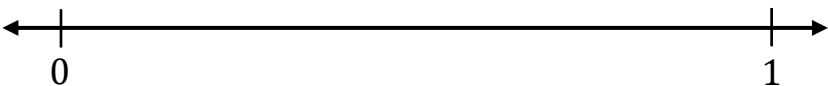
➢ Player 1 turns over their top card and writes their fraction on the recording sheet.

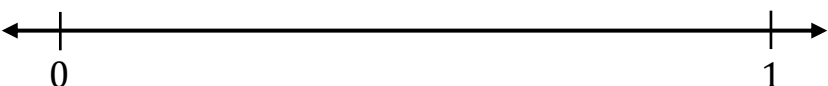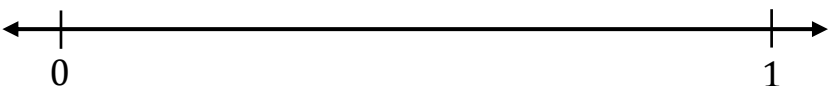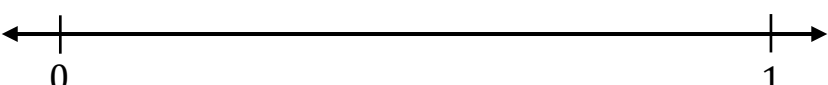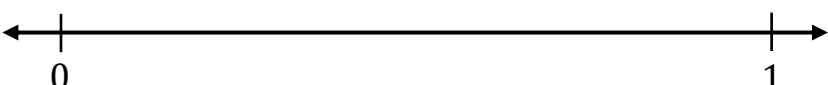➢ Player 2 turns over their top card and writes the fraction on the recording sheet **only if** it has the same numerator or same denominator as Player 1s card.

  ○ If Player 2's card does not have the same numerator or denominator, place the card at the bottom of the pile and choose the next card.

➢ 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.

1.

_____   _____
Player 1   Player 2

0   1

0   1

2.

_____   _____
Player 1   Player 2

0   1

0   1

3.

_____   _____
Player 1   Player 2

0   1

0   1

4.

_____   _____
Player 1   Player 2

0   1

0   1

Independent Practice: Whose Fraction is Greater?

(Recording Sheet – Option 2 Continued)

5.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

6.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

7.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

8.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

9.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

10.

_____   _____
Player 1   Player 2

0 ———————————— 1

0 ———————————— 1

DELTA MATH
Rtl PROGRAM

$\dfrac{1}{2}$ Set A	$\dfrac{1}{4}$ Set A
$\dfrac{2}{4}$ Set A	$\dfrac{3}{4}$ Set A
$\dfrac{1}{8}$ Set A	$\dfrac{2}{8}$ Set A
$\dfrac{3}{8}$ Set A	$\dfrac{4}{8}$ Set A
$\dfrac{6}{8}$ Set A	$\dfrac{7}{8}$ Set A

DELTA MATH

$\dfrac{1}{3}$ Set B	$\dfrac{2}{3}$ Set B
$\dfrac{1}{6}$ Set B	$\dfrac{2}{6}$ Set B
$\dfrac{3}{6}$ Set B	$\dfrac{4}{6}$ Set B
$\dfrac{5}{6}$ Set B	$\dfrac{1}{4}$ Set B
$\dfrac{2}{4}$ Set B	$\dfrac{3}{4}$ Set B

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?

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?