

5th Grade Tier 2 Intervention Lessons

Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for 5.NF.1: Add and subtract mixed numbers with different denominators

Table of Contents

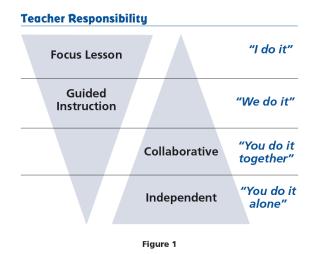
Session 1: Planning Guide	. p. 4
Session 1: Re-engagement Lesson Resourcesp.	. 5-13
Sessions 2 through 8: Planning Guide	. p.14
Sessions 2 through 8: Lesson Resources p. 2	15-55
Independent Practice Activities: "Addition/Subtraction Match-up!"	56-63
Classroom Poster: Questions for Solving Word Problems	p. 64
Tier 1 Support Classroom Poster: Steps for Solving Word Problems	p. 65

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 kindergar- ten 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, verbal- ization 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 interven- tionists should be proficient in the use of visual representations of mathematical ideas.	Moderate
 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



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



Planning Guide: Session 1

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different 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 Group 1 – Include students who <u>did not</u> meet the learning goal Group 2 – Include students who met or exceeded the learning goal 										



5th Grade Fall Guided Review

Readiness Standard 5 - 4.NF.3c

Name_____

Date_____

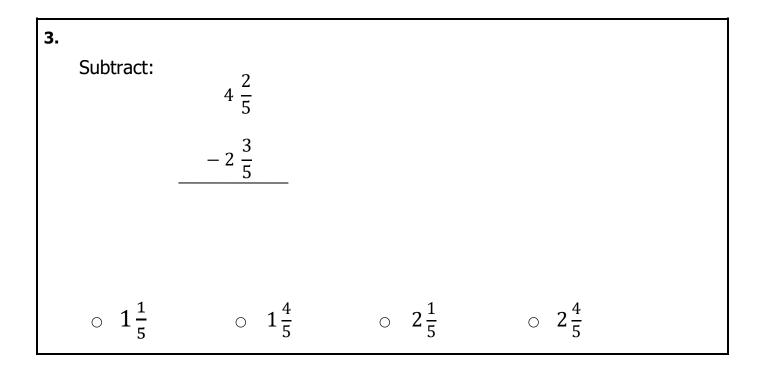
Learning Target: I will add and subtract mixed numbers.

1.					
	Add:	$4\frac{2}{3}$			
	_	$+1\frac{2}{3}$			
	$\circ 5\frac{1}{3}$	\circ 5 $\frac{4}{6}$	$\circ 6\frac{1}{3}$	$\circ 6\frac{4}{3}$	
2.					
	Subtract:	$5 \frac{4}{5}$			
	-	$-3\frac{1}{5}$			
	$\circ 2\frac{3}{0}$	$\circ 2\frac{3}{5}$	$\circ 2\frac{5}{5}$	$\circ 8\frac{5}{10}$	



5th Grade Fall Guided Review

Readiness Standard 5 - 4.NF.3c (continued)





5th Grade Winter Guided Review

Readiness Standard 5 - 4.NF.3c

Name_____

Date_____

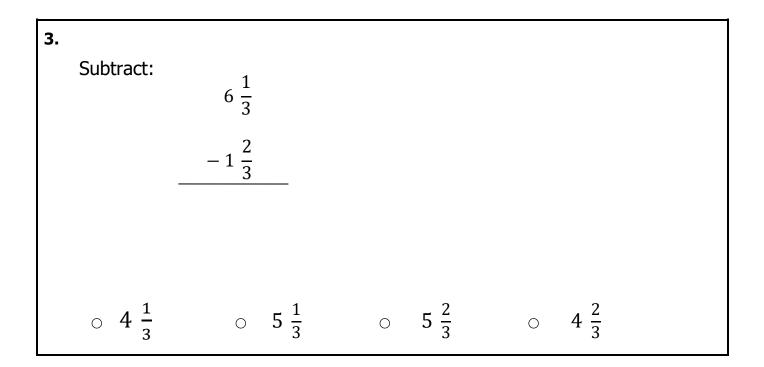
Learning Target: I will add and subtract mixed numbers.

1.	Add:	$4 \frac{3}{5} + 2 \frac{3}{5}$			
2.	$\circ 7 \frac{1}{5}$ Subtract:	$\circ 7 \frac{6}{5}$ $6 \frac{5}{7}$	$\circ 6 \frac{6}{10}$	0	$6\frac{1}{5}$
	○ 3 6 7	$-3\frac{1}{7}$ $3\frac{4}{7}$	○ 9 <u>6</u> 14	0	$3\frac{4}{0}$



5th Grade Winter Guided Review

Readiness Standard 5 - 4.NF.3c (continued)





5th Grade Spring Guided Review

Readiness Standard 5 - 4.NF.3c

Name_____

Date_____

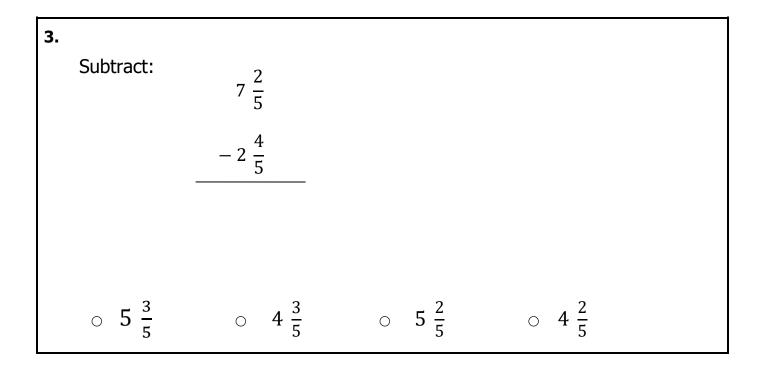
Learning Target: I will add and subtract mixed numbers.

1.	Add:	$5 \frac{3}{4}$ + $2 \frac{2}{4}$			
2.	$\circ 7 \frac{1}{4}$ Subtract:	$\circ 7 \frac{5}{8}$ $6 \frac{2}{3}$	0 8 1	0 8 5 4	
	$\circ 2\frac{3}{3}$	$-4\frac{1}{3}$ $0 10\frac{3}{6}$	$\circ 2\frac{1}{0}$	$\circ 2\frac{1}{3}$	



5th Grade Spring Guided Review

Readiness Standard 5 - 4.NF.3c (continued)





Session 1: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I remember today about adding and subtracting mixed numbers with like denominators?
- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form A

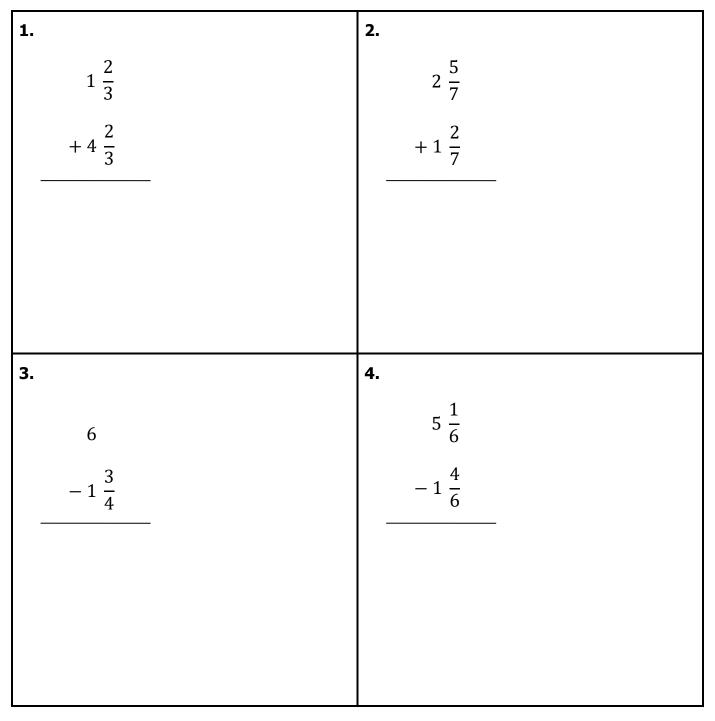
5th Grade - Readiness Standard 5 - 4.NF.3c

Name_____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)





Growth Chart

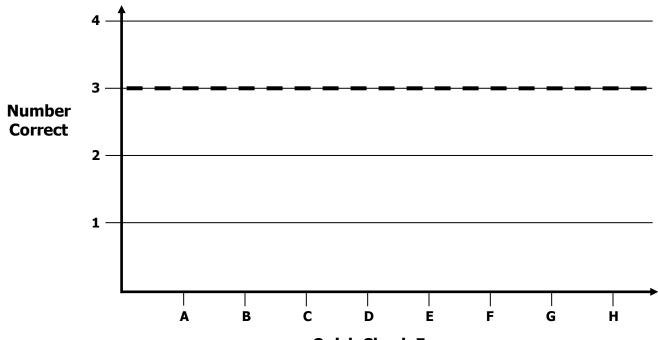
5th Grade - Readiness Standard 5 - 4.NF.3c

Name

Date____

Learning Target: I will add and subtract mixed numbers.

Goal: 3 out of 4 correct



Quick Check Form

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

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

	Recommended Actions	5									
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)	Group 2: (Students who met the learning goal)									
	 Model solving a word problem - "I do" Guided Practice - "We do together/ You do together" 	Independent practice – "You do alone"									
	 Session 2: Use fraction strips to add and subtract mixed numbers with like denominators Session 3: Use number lines to add and subtract mixed numbers with like denominators Session 4: Use understanding of whole numbers and fractional parts to add and subtract mixed numbers with like denominators 										
End (10 min.)	 Bring the students back together. Ask students to reflect on their progress towards the learning target What did I learn today about adding and subtracting mixed numbers with the like denominators? How confident do you feel about adding and subtracting mixed numbers with the like 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 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 Promote students who met the learning goal to group 2 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 										



0

Session 2: Modeling (I Do)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Kristin and her friend both had a string of licorice that was 1 foot long. After eating some, Kristin had

 $\frac{3}{4}$ of a foot left and her friend had $\frac{2}{4}$ of a foot left. If they combine their remaining licorice, how much do they have left altogether?



1 1

2



Session 2: Modeling (I Do – Visual Support)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Kristin and her friend both had a string of licorice that was 1 foot long. After eating some, Kristin had

 $\frac{3}{4}$ of a foot left and her friend had $\frac{2}{4}$ of a foot left. If they combine their remaining licorice, how much do they have left altogether?

Step 1: Draw $\frac{3}{4}$ 1 Whole 1 $\frac{1}{2}$ $\overline{2}$ $\frac{1}{3}$ 1 $\frac{1}{3}$ 3 $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ 2 0 1 Step 2: Draw $\frac{2}{4}$ added to $\frac{3}{4}$ 1 Whole $\frac{1}{2}$ 1 $\overline{2}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ 1 $\frac{3}{4}$ $\overline{4}$ 0 2 1 Step 3: Find the total $\frac{3}{4}$ 2 0 1 $1\frac{1}{4}$



Session 2: Modeling (I Do - Teacher Notes)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Kristin and her friend both had a string of licorice that was 1 foot long. After eating some, Kristin had

 $\frac{3}{4}$ of a foot left and her friend had $\frac{2}{4}$ of a foot left. If they combine their remaining licorice, how much do they have left altogether?

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 Kristin and her friend eating string licorice. Second, I need to determine what I need to find. I need to find how much they have left after each of them ate some. Third, I need to determine what I know. I know that they each began with 1 foot of licorice. And, after they both ate some, Kristin had $\frac{3}{4}$ of a foot left and her friend had $\frac{2}{4}$ of a foot left.

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

I am going to try using fraction strips and a number line to add $\frac{3}{4}$ and $\frac{2}{4}$. (Hold up a template of fraction strips and the fraction cards.)

I am going fold my fraction template to so that the "fourths" are visible as the bottom row... (Fold the template so that four-fourths are visible at the bottom.)

Since Kristin had 3 "fourths" of a foot left, I will use the fraction strips to mark off 4 fourths. (Draw 3 marks to separate the fourths and draw a fraction arrow/vector.)

To add 2 "fourths" of a foot to Kristin's, I notice that the total will go past 1 whole. (Place the left side of the template to the right of the fraction arrow/vector.)

I will need to separate the second whole into fourths so that I can figure out the total. (Draw 3 marks to separate the fourths between 1 and 2.)

Now I can draw an arrow/vector to represent 2 "fourths".

(Draw the fractions arrow/vector.)

It looks like Kristin and her friend have 1 and 1 fourth feet of licorice left.

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

I found that Kristin and her friend have 1 and 1 fourth feet of licorice left. It makes sense because I used a fraction template to represent both fractional amounts on a number line and then located the total.

Name ______

Date

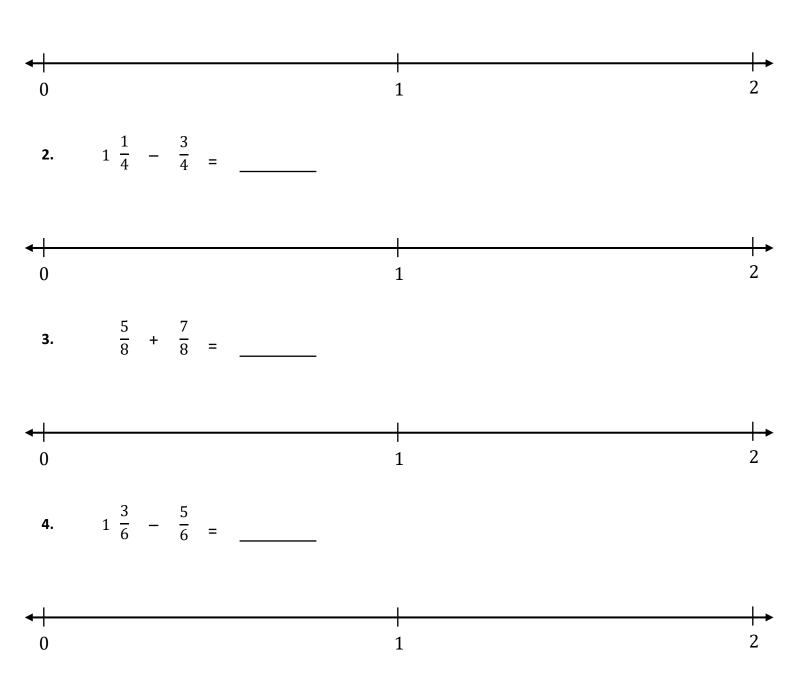
5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Session 2: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- > Use fraction strips and number lines to add or subtract.
- **1.** $\frac{2}{3} + \frac{2}{3} =$



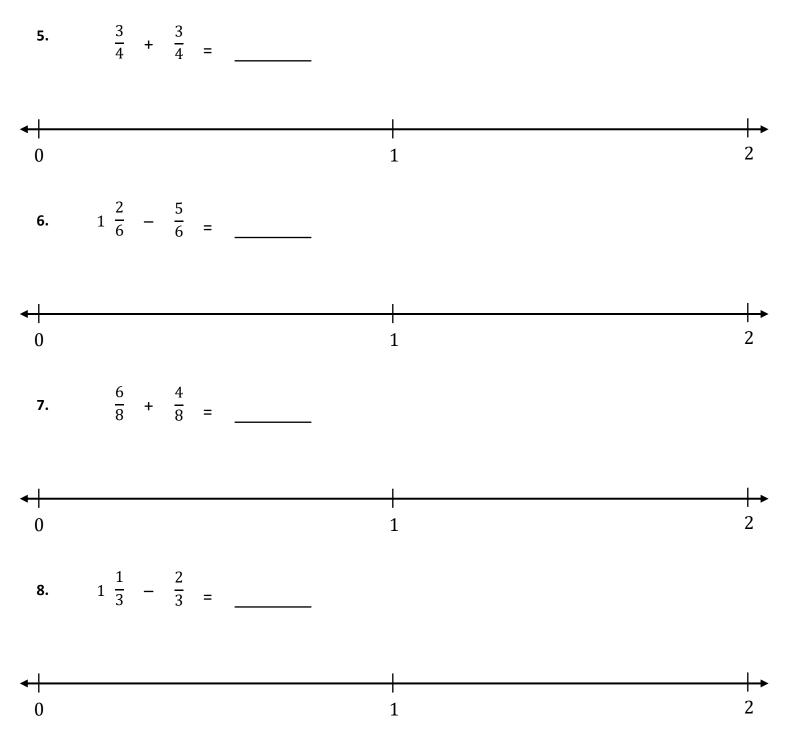


Learning Target: I will add and subtract mixed numbers with like denominators

Session 2: Guided Practice (We Do - Continued)

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

Students take turns leading using fraction strips and number lines to add or subtract.



Name

Date _____

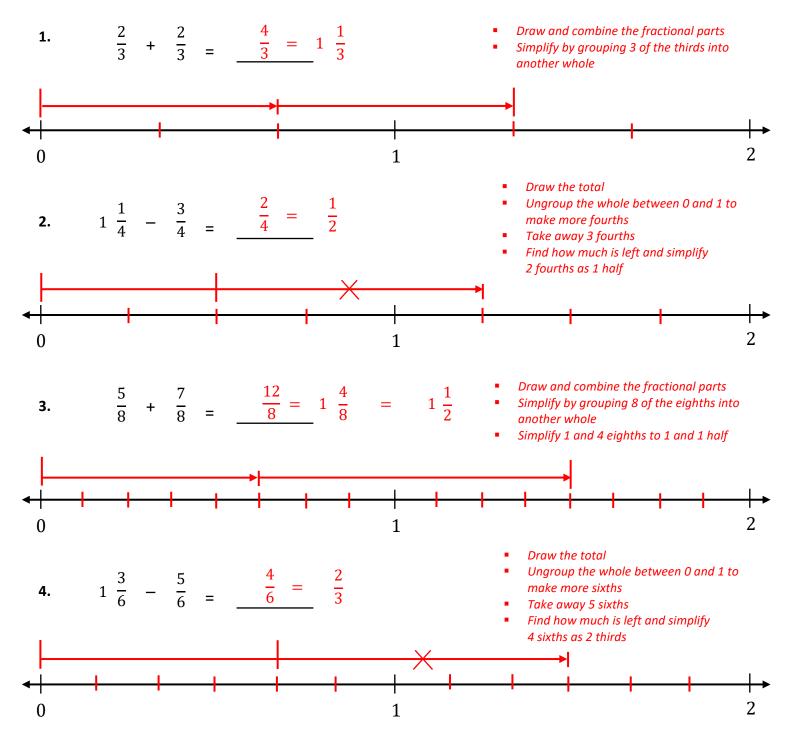
5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Session 2: Guided Practice (We Do – Teacher Notes)

We Do Together: (Teacher Actions)

Use fraction strips and number lines to add or subtract.





Fraction Strips (4 Sets) 5th Grade - Readiness Standard 5 - 4.NF.3c

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 W	hole						
$\frac{1}{2}$ $\frac{1}{2}$					$\frac{1}{2}$ $\frac{1}{2}$										
	$\begin{array}{c c} 1\\ \hline 1\\ \hline 3 \end{array} \qquad \begin{array}{c} 1\\ \hline 3\\ \hline \end{array} \qquad \begin{array}{c} 1\\ \hline 3\\ \hline \end{array} \qquad \begin{array}{c} 1\\ \hline 3\\ \hline \end{array}$					$\frac{1}{3}$			$\frac{1}{3}$ $\frac{1}{3}$						
$\frac{1}{4}$	$\frac{1}{4}$		$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$		$\frac{1}{4}$		<u>L</u> <u>+</u>	-	$\frac{1}{4}$	1	L _ }		$\frac{1}{4}$
$\frac{1}{6}$	$\frac{1}{\epsilon}$	<u> </u>	$\frac{1}{6}$	$\frac{1}{6}$		1 6	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{\epsilon}$		$\frac{1}{6}$	$\frac{1}{6}$		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 W	hole				1 Whole							
	$\frac{1}{2}$	-			$\frac{1}{2}$	- - - -		$\frac{1}{2}$ $\frac{1}{2}$							
	$\frac{1}{3}$			1		$\frac{1}{3}$			$\frac{1}{3}$		1	<u>1</u> 3		$\frac{1}{3}$	
$\frac{1}{4}$	L F		$\frac{1}{4}$	$\frac{1}{4}$			<u>1</u> 4	$\frac{1}{4}$ $\frac{1}{4}$			$\frac{1}{4}$	<u> </u> - -		$\frac{1}{4}$	
$\frac{1}{6}$	$\frac{1}{\epsilon}$	<u>-</u>	$\frac{1}{6}$	$\frac{1}{6}$		<u>1</u> 6	$\frac{1}{6}$	$\frac{1}{6}$ $\frac{1}{6}$			$\frac{1}{6}$	$\frac{1}{6}$		1 6	$\frac{1}{6}$
$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{8}$



Session 2: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form B

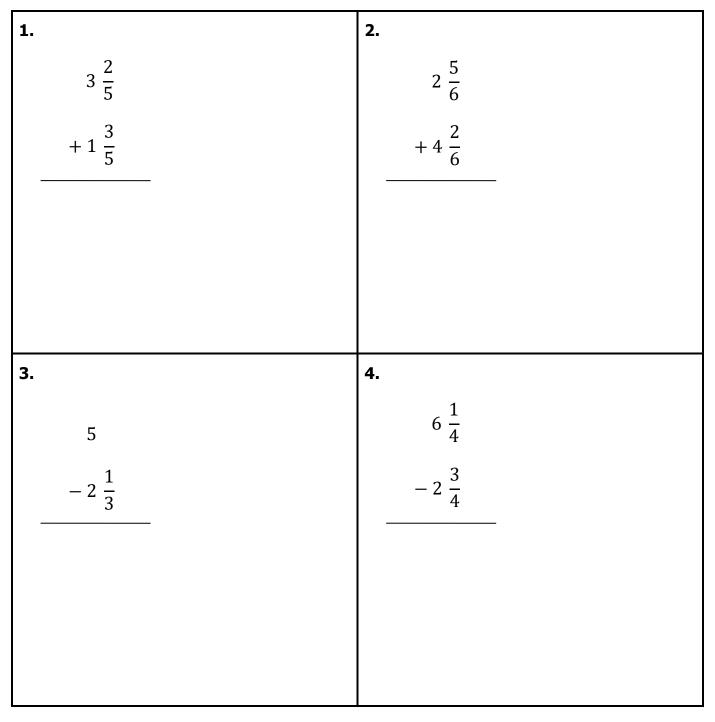
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)



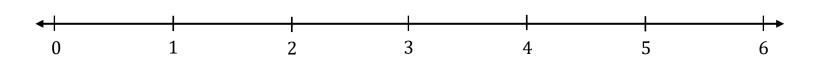


Session 3: Modeling (I Do)

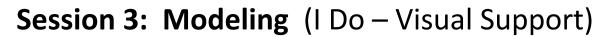
5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators **Readiness** for adding and subtracting mixed numbers with different denominators

Lori is preparing for a running race. As part of her practice schedule, she ran $1\frac{2}{4}$ miles on the first day of practice and $1\frac{3}{4}$ miles on the second day. How far did she run during her first two days of practice?



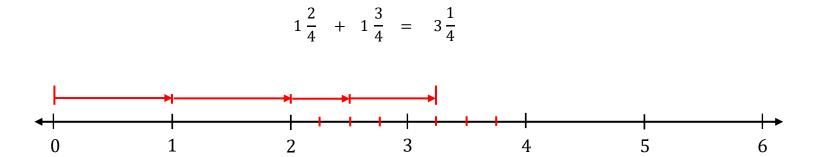




5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators Readiness for adding and subtracting mixed numbers with different denominators

Lori is preparing for a running race. As part of her practice schedule, she ran $1\frac{2}{4}$ miles on the first day of practice and $1\frac{3}{4}$ miles on the second day. How far did she run during her first two days of practice?





Session 3: Modeling (I Do - Teacher Notes)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Lori is preparing for a running race. As part of her practice schedule, she ran $1\frac{2}{4}$ miles on the first day of practice and $1\frac{3}{4}$ miles on the second day. How far did she run during her first two days of practice?

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 Lori preparing for a race.

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

I need to find how far she ran during two days of practice.

Third, I need to determine what I know.

I know that Lori ran 1 and 2-fourths of a mile on the first day and 1 and 3-fourths of a mile on the second.

 $1\frac{2}{4} + 1\frac{3}{4} = 3\frac{1}{4}$

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

I am going to try drawing both mixed

numbers on a number line to add them together. (Write the addition problem above the number line.)

To make this addition drawing, I am going to draw the whole numbers first and the fractional parts second. (Point to the whole numbers and then the fractional parts.)

To add the whole numbers, I simply need to model one plus one on the number line. (Count 1 whole and draw a vertical mark above the number line, then the first arrow from 0 to 1. Count another whole and draw a vertical mark above the number line, then the second arrow from 1 to 2.)

To add the fractional parts, I need to separate the next whole numbers on the number line into fourths. (Draw 3 marks on the number line to separate the whole between 2 and 3 into fourths.)

To draw 2 "fourths" of a whole, I will draw an arrow that is 2 fourths of the whole from 2 to 3. (Count 2 fourths and draw a vertical mark above the number line, then the arrow.)

I don't have enough fourths identified to draw 3 fourths, so I will need to separate another whole into fourths. (Draw 3 marks to separate the whole between 3 and 4 into fourths.)

Now I can draw 3 more "fourths" to see that Lori ran 3 and 1 fourth miles.

(Count 3 fourths and draw a longer vertical mark above the number line, then the arrow between 2 and 2 fourths and 3 and 1 fourth.)

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

I found that Lori ran 3 and 1 fourth miles during her first two days of practice. It makes sense because I drew both mixed numbers on a number line to see that 2 whole numbers and 5 fourths is the same as 3 wholes and 1 fourth.



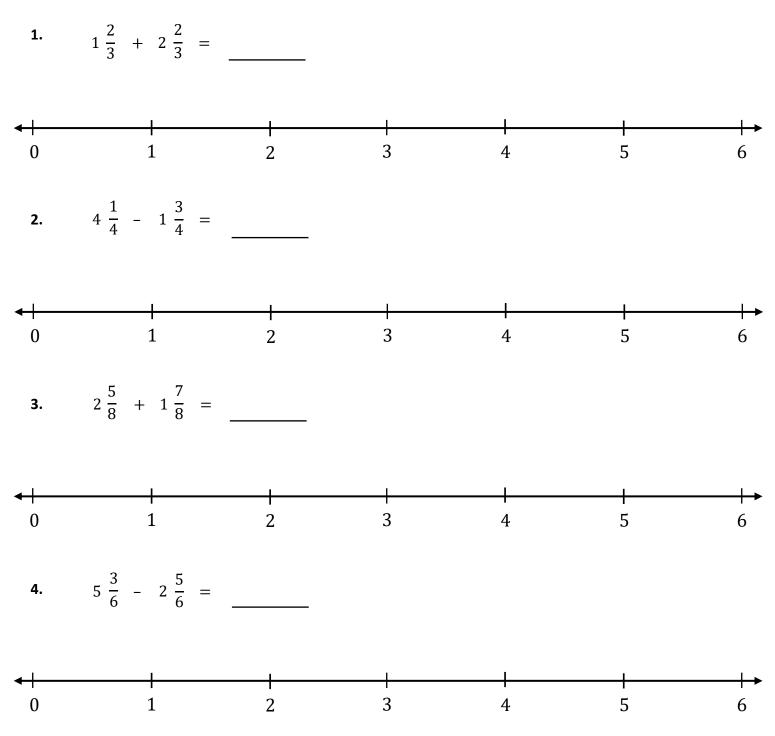
5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Session 3: Guided Practice (We Do)

We Do Together: (Teacher Actions)

> Use number lines to add or subtract the mixed numbers.



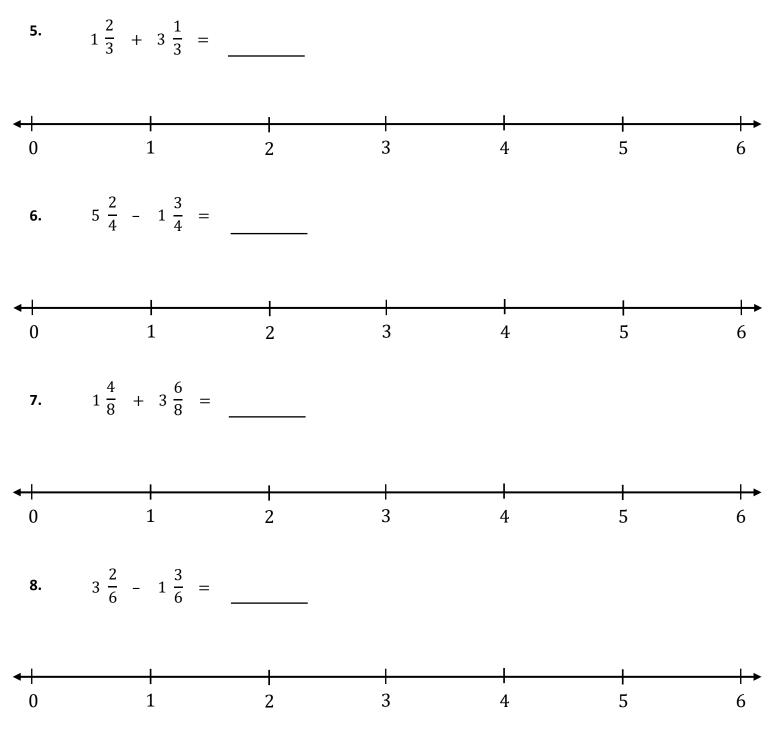
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Date _____
5<sup>th</sup> Grade - RS 5 - 4.NF.3c
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Learning Target: I will add and subtract mixed numbers with like denominators

Session 3: Guided Practice (We Do - Continued)

You Do Together: (Teacher Actions)

Students take turns leading using number lines to add or subtract the mixed numbers.



Name

Date

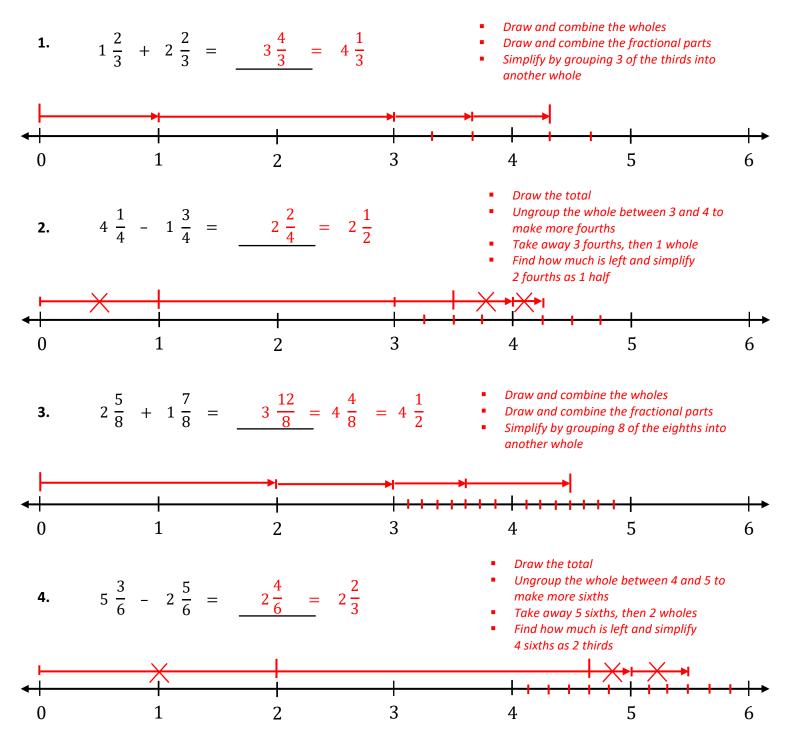
5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

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

We Do Together: (Teacher Actions)

> Use number lines to add or subtract the mixed numbers.





Session 3: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form C

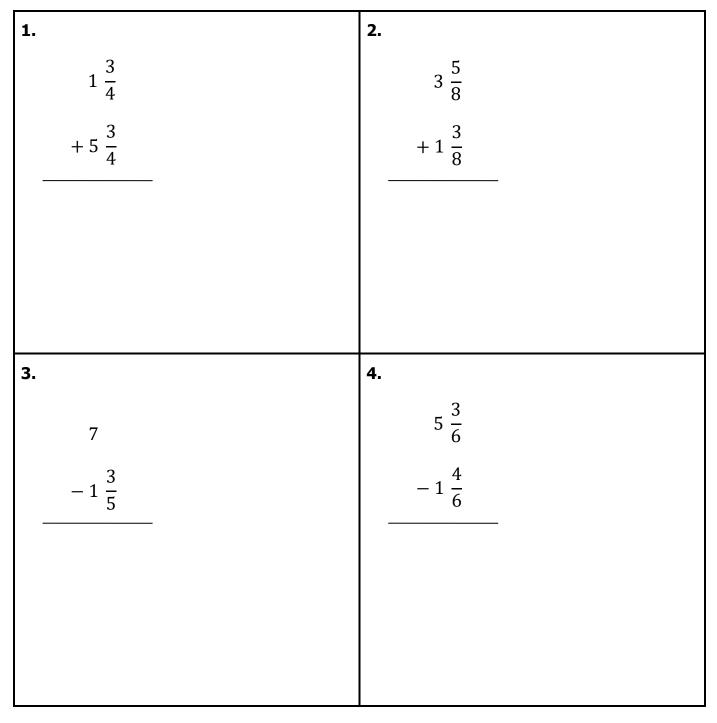
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)





Session 4: Modeling (I Do)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators Readiness for adding and subtracting mixed numbers with different denominators

Lauren was making bracelets out of ribbon for her daughter's birthday party. She began with 3 $\frac{1}{4}$ feet of ribbon and used 1 $\frac{3}{4}$ feet to make the bracelets. How many feet of ribbon does she have left?



Session 4: Modeling (I Do – Visual Support)

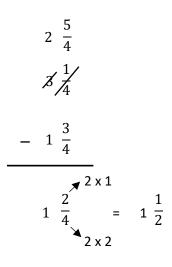
5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Lauren was making bracelets out of ribbon for her daughter's birthday party. She began with 3 $\frac{1}{4}$ feet of ribbon and used 1 $\frac{3}{4}$ feet to make the bracelets. How many feet of ribbon does she have left?

Feet of Ribbon





Session 4: Modeling (I Do - Teacher Notes)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Readiness for adding and subtracting mixed numbers with different denominators

Lauren was making bracelets out of ribbon for her daughter's birthday party. She began with 3 $\frac{1}{4}$ feet of ribbon

and used $1\frac{3}{4}$ feet to make the bracelets. How many feet of ribbon does she have left?

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

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

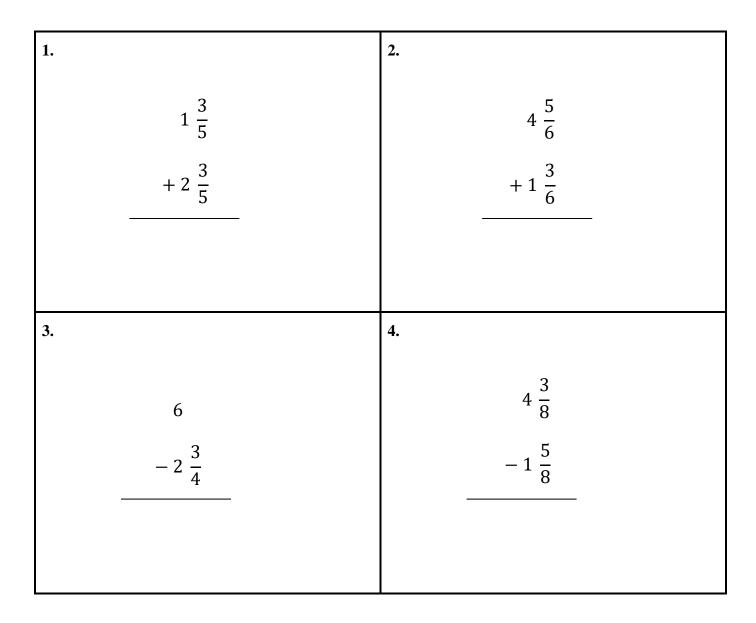
First, it is important to know what the problem is about. This problem is about Lauren making bracelets out of ribbon for her daughter's birthday party. Second, I need to determine what I need to find. I need to find how much ribbon she has left. Third, I need to determine what I know. I know that she began with 3 and 1 fourth feet of ribbon and used 1 and 3 fourths to make the bracelets. Feet of Ribbon Fourth, I need to figure out what I can try. I am going to try using my understanding of whole numbers and fractional parts to subtract 1 and 3 fourths from 3 and 1 fourth. $2\frac{5}{4}$ (Write the label and subtraction problem.) Since I am subtracting 3 fourths and I currently only have 1 fourth, I will need to ungroup one of my wholes into 4 more fourths. (Point to the fractional parts of each mixed number.) If I ungroup one of my 3 wholes, I am left with 2 wholes. (Cross off the 3 and write the whole number "2" above it.) One whole ungroups into 4 fourths, so I now have 5 fourths in the fractional part. (Cross off the 1 fourth and write 5 fourths above it.) Now that I rewrote 3 and 1 fourth as an equivalent 2 and 5 fourths, I can subtract the "like" values. 2 wholes minus 1 whole is equal to 1 whole. (Write the whole number 1 under the subtraction line.) And, 5 fourths minus 3 fourths is equal to 2 fourths. (Write the fractional part 2 fourths under the subtraction line.) Lauren has 1 and 2 fourths feet of ribbon left which can be simplified as 1 and 1 half, since the numerator and denominator have a common factor of 2. (Write = $1\frac{1}{2}$ next to the answer) I can figure this out because 2 times 1 equals 2 and 2 times 2 equals 4, then 2 fourths is equal to 1 half Last, I need to make sure that my answer makes sense. I found that Lauren had 1 and 1 half feet of ribbon left. It makes sense because ungrouped a whole to make enough fourths, then I subtracted the whole and fourths separately to find what was left.

Learning Target: I will add and subtract mixed numbers with like denominators

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

> Use your understanding of whole numbers and fractional parts to add or subtract.

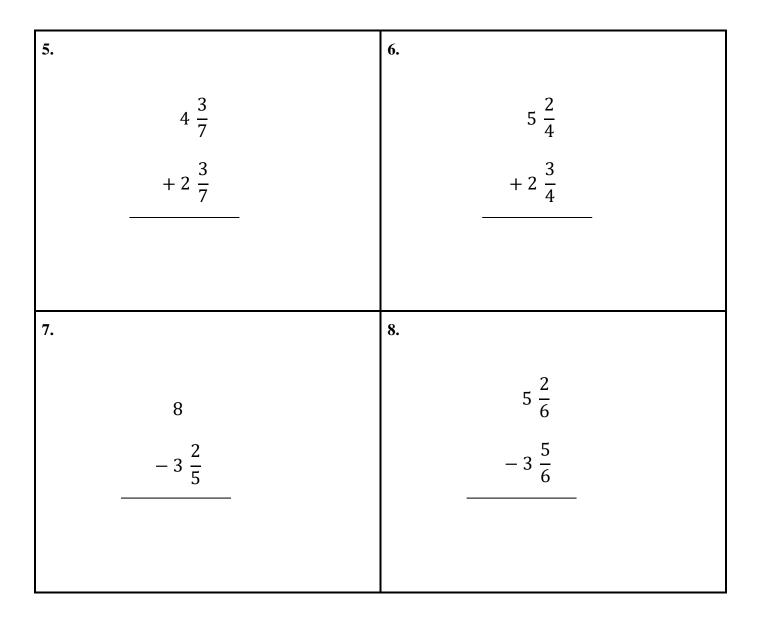


Learning Target: I will add and subtract mixed numbers with like denominators

Session 4: Guided Practice (We Do - Continued)

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

> Take turns leading to use your understanding of whole numbers and fractional parts to add or subtract.

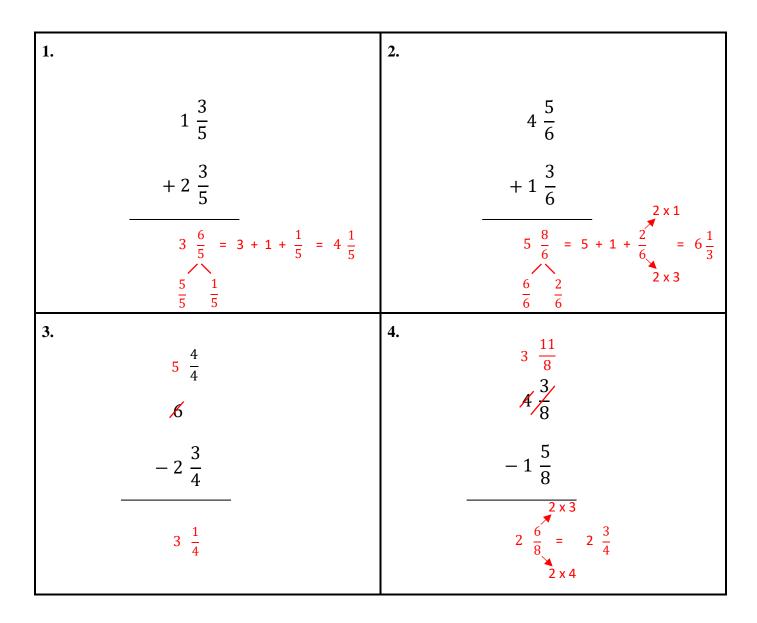


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Date _____
5<sup>th</sup> Grade - RS 5 - 4.NF.3c
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Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

> Use your understanding of whole numbers and fractional parts to add or subtract.





Session 4: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form D

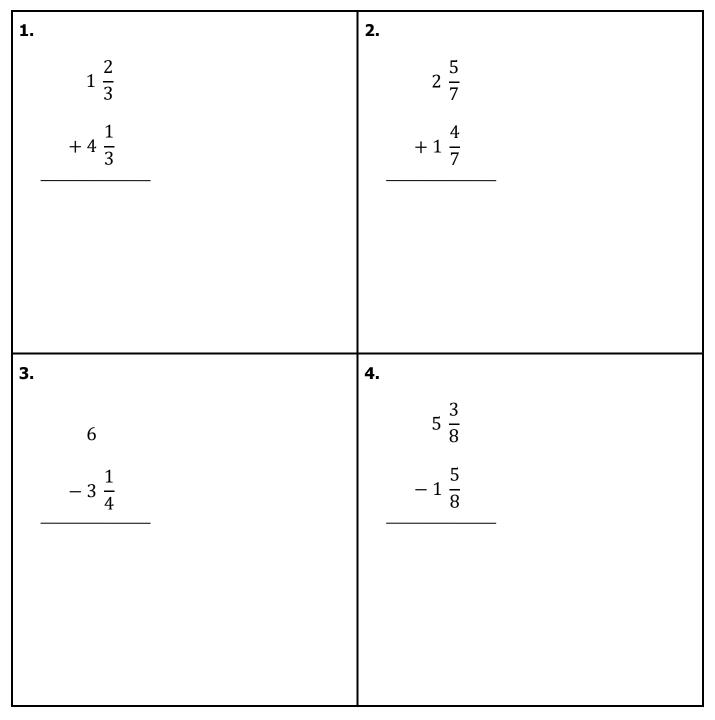
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)





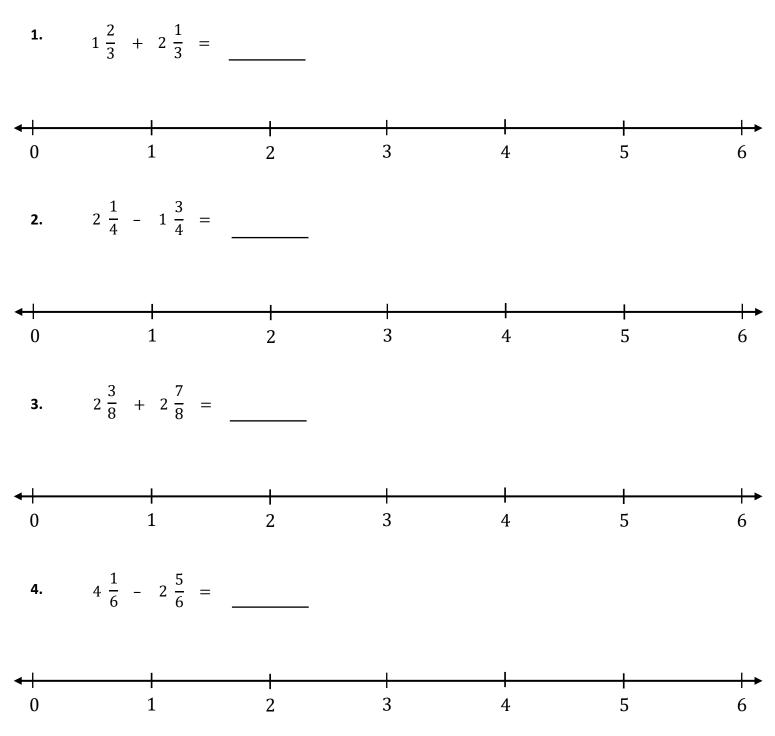
5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Session 5: Guided Practice (We Do)

We Do Together: (Teacher Actions)

> Use number lines to add or subtract the mixed numbers.

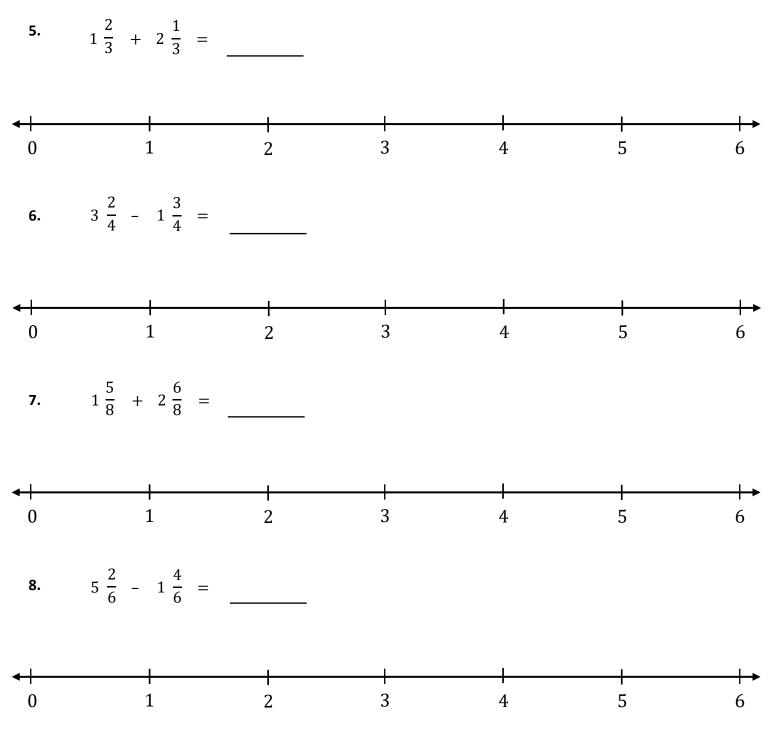


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Date _____
5<sup>th</sup> Grade - RS 5 - 4.NF.3c
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Session 5: Guided Practice (We Do - Continued)

You Do Together: (Teacher Actions)

> Students take turns leading using number lines to add or subtract the mixed numbers.





Session 5: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form E

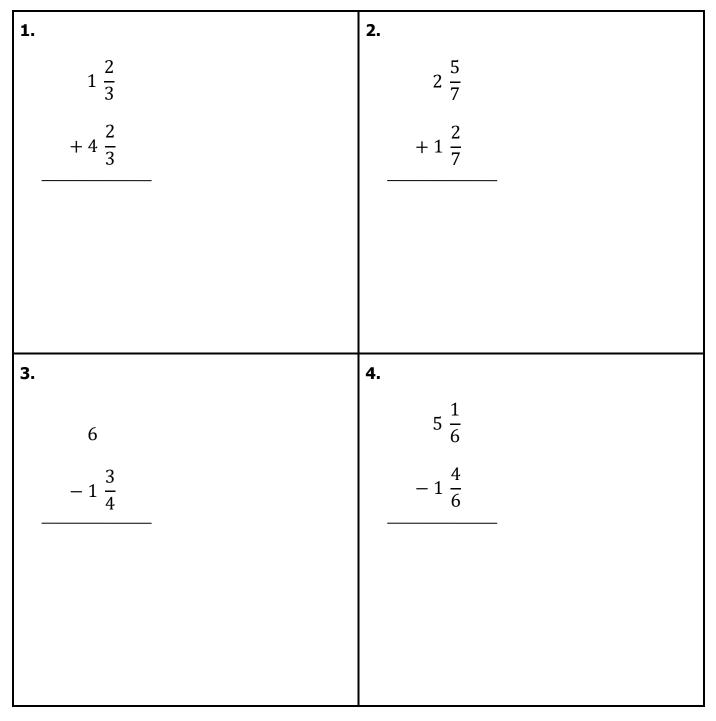
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)





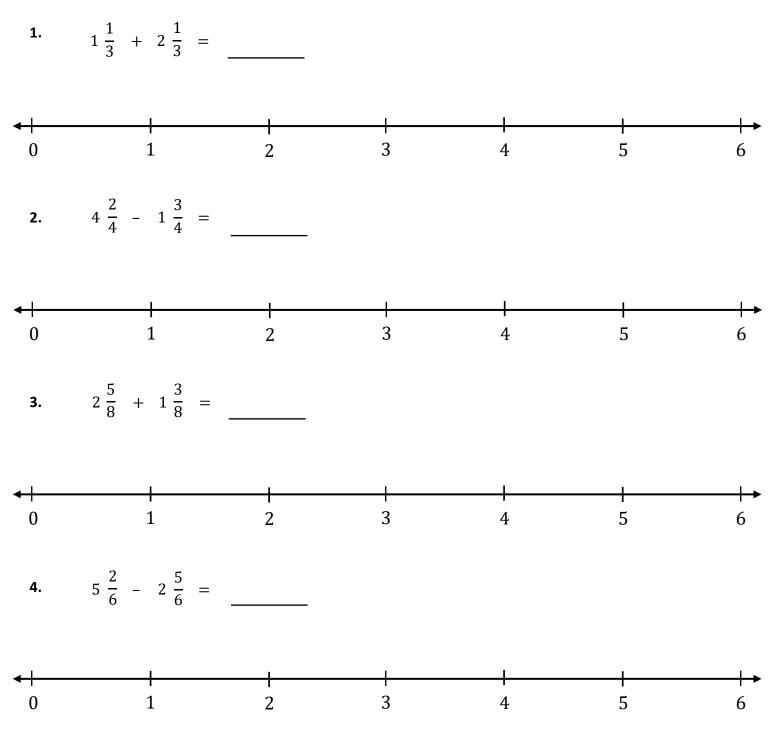
5th Grade - RS 5 - 4.NF.3c

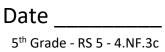
Learning Target: I will add and subtract mixed numbers with like denominators

Session 6: Guided Practice (We Do)

We Do Together: (Teacher Actions)

> Use number lines to add or subtract the mixed numbers.

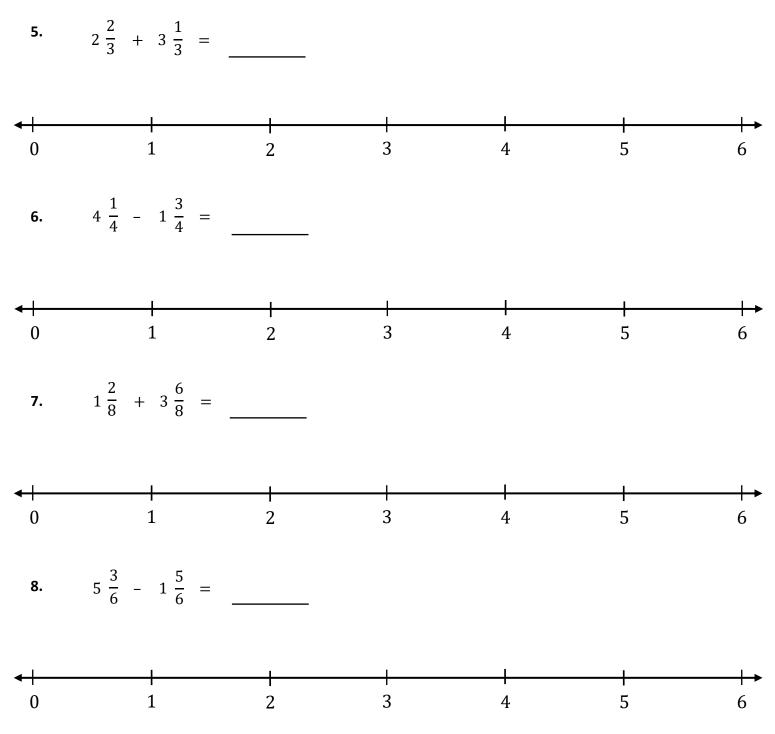




Session 6: Guided Practice (We Do - Continued)

You Do Together: (Teacher Actions)

> Students take turns leading using number lines to add or subtract the mixed numbers.





Session 6: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form F

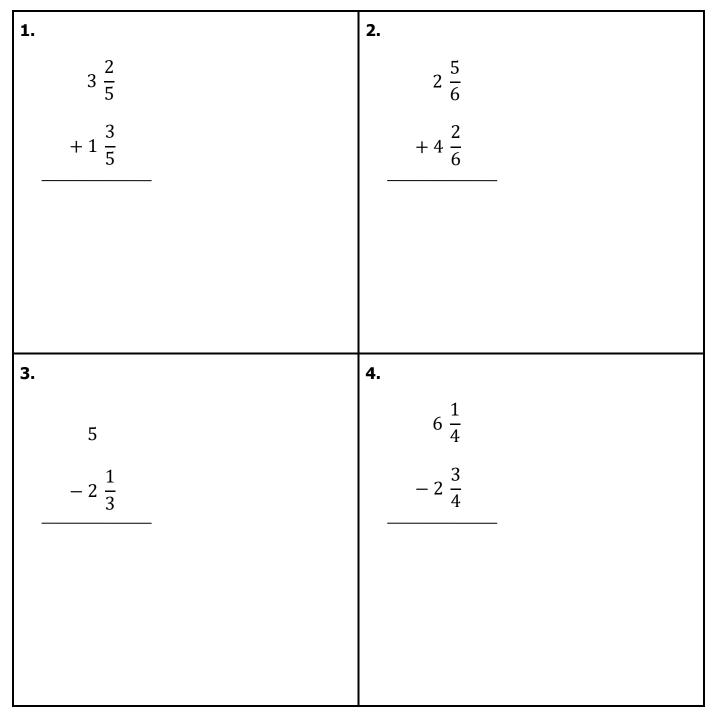
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

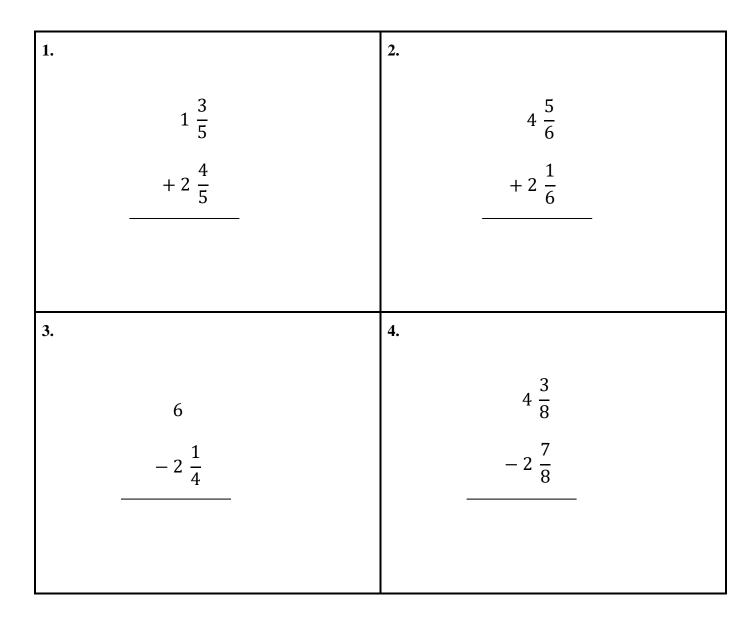


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Date _____
5<sup>th</sup> Grade - RS 5 - 4.NF.3c
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Session 7: Guided Practice (We Do)

We Do Together: (Teacher Actions)

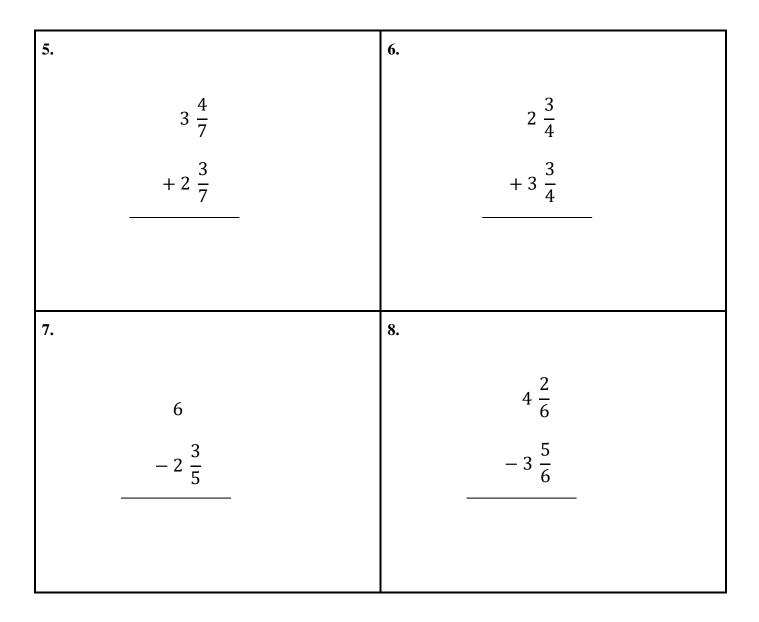
> Use your understanding of whole numbers and fractional parts to add or subtract.



Session 7: Guided Practice (We Do - Continued)

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

> Take turns leading to use your understanding of whole numbers and fractional parts to add or subtract.





Session 7: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form G

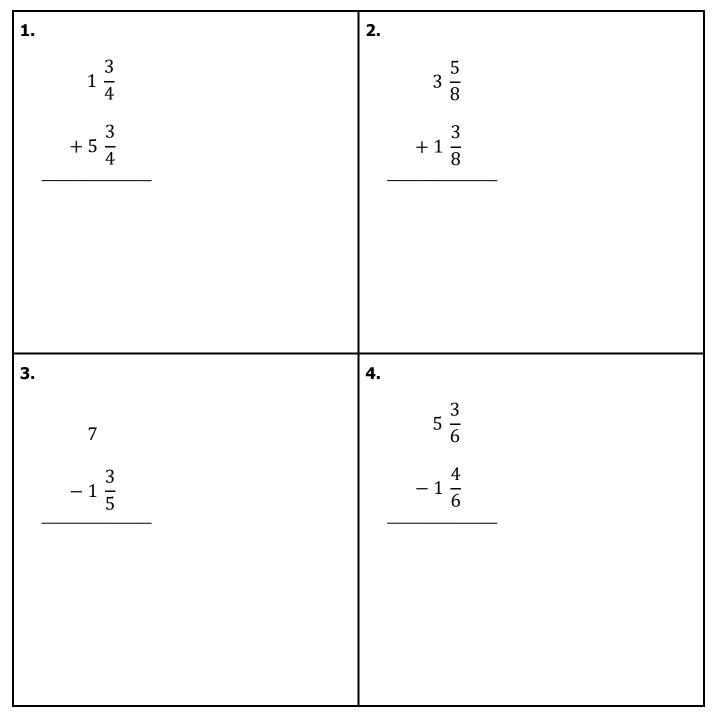
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)

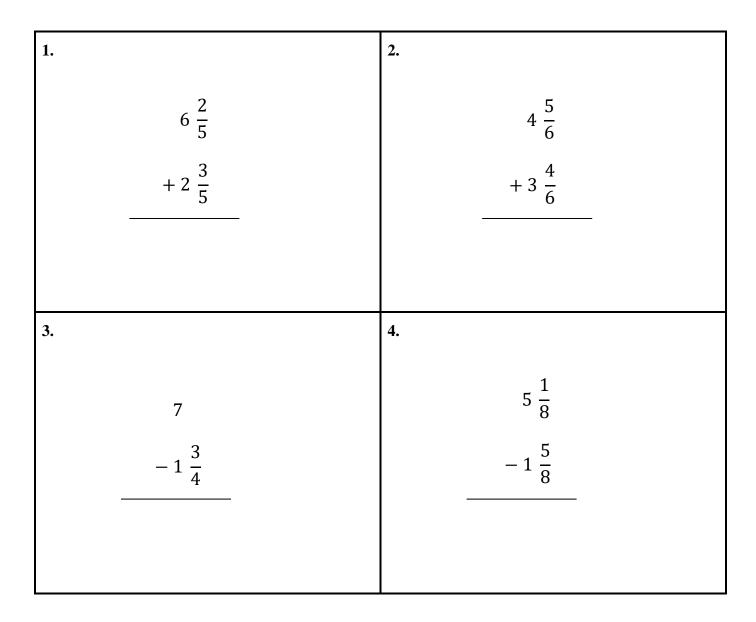


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Date _____
5<sup>th</sup> Grade - RS 5 - 4.NF.3c
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Session 8: Guided Practice (We Do)

We Do Together: (Teacher Actions)

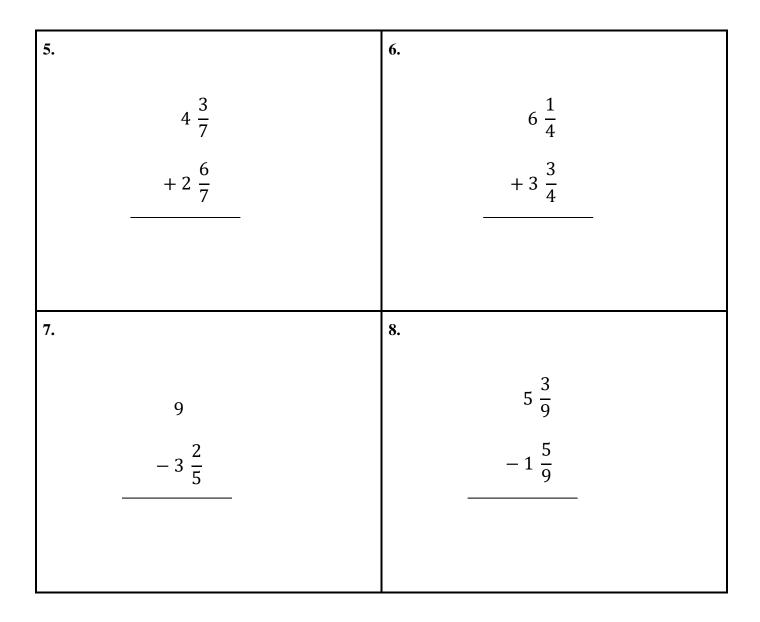
> Use your understanding of whole numbers and fractional parts to add or subtract.



Session 8: Guided Practice (We Do - Continued)

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

> Take turns leading to use your understanding of whole numbers and fractional parts to add or subtract.





Session 8: Self-Reflection

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Briefly discuss student responses:

- What did I learn today about adding and subtracting mixed numbers with like denominators?
- How confident do I feel about adding and subtracting mixed numbers with like denominators on my own? (Thumbs up, down, or sideways)



Quick Check - Form H

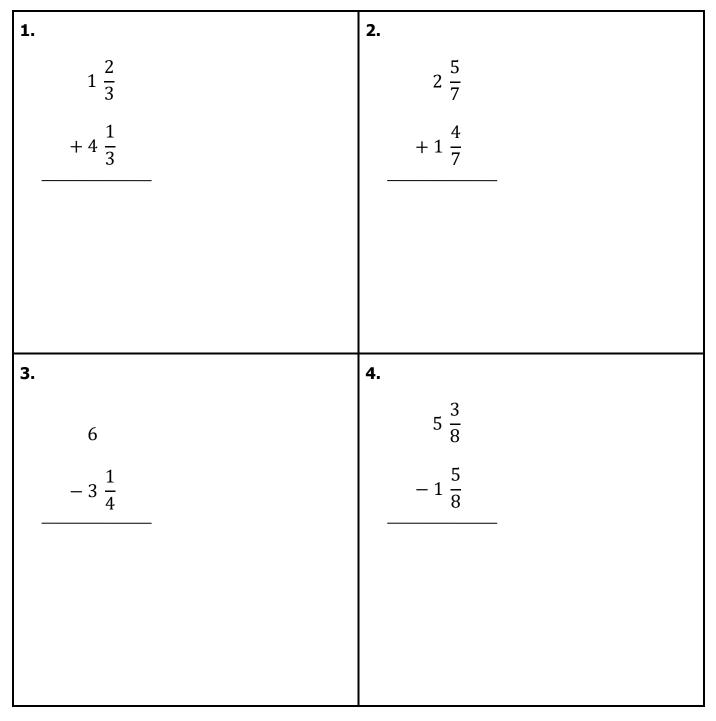
5th Grade - Readiness Standard 5 - 4.NF.3c

Name____

Date____

Learning Target: I will add and subtract mixed numbers.

Directions: Write the answer to each problem. (Work time: 4 minutes)





Independent Practice (You Do)

5th Grade - Readiness Standard 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators **Readiness** for adding and subtracting mixed numbers with different denominators

Title of Game: Play "Addition/Subtraction Match-up!"

Number of Players: 2

Objective: To match your answer cards to unknown problem cards.

Materials:

- > 1 set of **Problem** and **Answer** cards per group
- 1 recording sheet per player

Set-up:

- > Deal all 10 **Problem** cards face down in a row.
- > Deal 5 **Answer** cards face up to each player.

Directions:

- > Player 1 goes first
 - \circ ~ Take a card from the row of face down $\mbox{Problem}$ cards and turn it face up
 - Write the problem on the recording sheet
 - o And, find the answer in simplest form
- > If **Player 1** has the **Answer** card, place it face up on top of the **Problem** card, take both cards and say:

"The answer to _____ is equal to _____."

- > If **Player 1** does not have the answer to the **Problem** card, turn the **Problem** card back over.
- > Players 1 and 2 alternate turns. The winner is the first player to match all 5 of their cards.



5th Grade - RS 5 - 4.NF.3c

Learning Target: I will add and subtract mixed numbers with like denominators

Independent Practice: Addition/Subtraction Match-up!

(Recording Sheet)



Problem Cards (Set A)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the **Problem (Set A)** cards and **Answer (Set A)** cards in two different colors. Store 1 set of each in a sealable bag for each pair of students.

	$6 \frac{1}{4} \\ + 2 \frac{2}{4}$	$6 \frac{2}{4} \\ + 2 \frac{3}{4}$	5 $\frac{3}{4}$ + 2 $\frac{2}{4}$	$5 \frac{1}{4} + 2 \frac{3}{4}$	5 - 2 $\frac{3}{4}$
Set A ₁	4	4	4	4	4
Š	$6 \frac{1}{4}$	$5 \frac{2}{4}$	$5 \frac{3}{4}$	$6 \frac{1}{4}$	5
	$-2 \frac{2}{4}$	$-2 \frac{3}{4}$	$-2 \frac{2}{4}$	$-2 \frac{3}{4}$	$-2\frac{3}{4}$
	Set A	Set A	Set A	Set A	Set A
	$6 \frac{1}{4}$	$6 \frac{2}{4}$	$5 \frac{3}{4}$	$5 \frac{1}{4}$	5
	$+ 2 \frac{2}{4}$	$+ 2 \frac{3}{4}$	$+ 2 \frac{2}{4}$	$+ 2 \frac{3}{4}$	$-2\frac{3}{4}$
Set A ₂	Set A	Set A	Set A	Set A	Set A
Se	$6 \frac{1}{4}$	$5 \frac{2}{4}$	$5 \frac{3}{4}$	$6 \frac{1}{4}$	5
	$-2 \frac{2}{4}$	$-2 \frac{3}{4}$	$-2 \frac{2}{4}$	$-2 \frac{3}{4}$	$-2\frac{3}{4}$
	Set A	Set A	Set A	Set A	Set A



Answer Cards (Set A)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the **Problem (Set A)** cards and **Answer (Set A)** cards in two different colors. Store 1 set of each in a sealable bag for each pair of students.

Set	A 1	Set	A ₂
$8 \frac{3}{4}$	$3\frac{3}{4}$	$8 \frac{3}{4}$ Set A	$3\frac{3}{4}$
9 1 9 1 Set A	$2\frac{3}{4}$	$9\frac{1}{4}$ Set A	$2\frac{3}{4}$ Set A
8 1/4 Set A	$3\frac{1}{4}$ Set A	8	$3\frac{1}{4}$ Set A
8 Set A	3	8 Set A	$3\frac{1}{2}$ Set A
$2 \frac{1}{4}$ Set A	2	$2\frac{1}{4}$	$2\frac{1}{4}$ Set A



Problem Cards (Set B)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the Problem (Set B) cards and Answer (Set B) cards in two different colors.

Store 1 set of each in a sealable bag for each pair of students.

	$5 \frac{1}{8} + 2 \frac{5}{8}$	$4 \frac{3}{8} + 2 \frac{5}{8}$	$4 \frac{7}{8} + 2 \frac{3}{8}$	$4 \frac{5}{8} + 2 \frac{7}{8}$	5 - 2 $\frac{5}{8}$
31	Set B	Set B	Set B	Set B	Set B
Set B ₁	Jerb	Set D	Set B	Set B	Зег в
S	$6 \frac{1}{8}$	$5 \frac{3}{8}$	$5 \frac{3}{8}$	$6 \frac{5}{8}$	5
	$-2 \frac{5}{8}$	$-2 \frac{5}{8}$	$-2 \frac{7}{8}$	$-2 \frac{7}{8}$	$-2\frac{3}{8}$
	8	8	8	8	8
	Set B	Set B	Set B	Set B	Set B
	Set B	Set B	Sel B	JEL B	JELD
	$5 \frac{1}{8}$ $+ 2 \frac{5}{8}$	$4 \frac{3}{8} + 2 \frac{5}{8}$	$4 \frac{7}{8} + 2 \frac{3}{8}$	$4 \frac{5}{8} + 2 \frac{7}{8}$	5 - 2 $\frac{5}{8}$
B ₂	Set B	Set B	Set B	Set B	Set B
Set B ₂	$6 \frac{1}{8} \\ -2 \frac{5}{8}$	$5 \frac{3}{8}$ - 2 $\frac{5}{8}$	$5 \frac{3}{8}$ - 2 $\frac{7}{8}$	$6 \frac{5}{8} - 2 \frac{7}{8}$	5 - 2 $\frac{3}{8}$
	Set B	Set B	Set B	Set B	Set B



Answer Cards (Set B)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the **Problem (Set B)** cards and **Answer (Set B)** cards in two different colors. Store 1 set of each in a sealable bag for each pair of students.

Set	B1	Set	B2
7 $rac{3}{4}$	3 1/2 Set B	7 ${3\over 4}$	3
7 ${1\over 4}$	2	$7 \frac{1}{4}$ Set B	2 3 4 Set B
7 1/2 Set B	2 1/2 Set B	7 1/2 Set B	2
7 Set B	$3\frac{3}{4}$	7 Set B	$3\frac{3}{4}$
2 3/8 Set B	2	$2\frac{3}{8}$	$2\frac{5}{8}$



Problem Cards (Set C)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the **Problem (Set C)** cards and **Answer (Set C)** cards in two different colors. Store 1 set of each in a sealable bag for each pair of students.

	$5 \frac{1}{12}$ $+ 2 \frac{5}{12}$	$6 \frac{3}{12} \\ + 2 \frac{9}{12}$	$ \begin{array}{r} 4 & \frac{5}{12} \\ + 2 & \frac{10}{12} \end{array} $	$ \begin{array}{r} 4 & \frac{9}{12} \\ + 2 & \frac{7}{12} \\ \end{array} $	5 - 2 $\frac{3}{12}$
5	Set C	Set C	Set C	Set C	Set C
Set C ₁	$6 \frac{1}{12} - 1 \frac{5}{12}$	$5 \frac{3}{12} - 1 \frac{9}{12}$	$5 \frac{5}{12} - 2 \frac{10}{12}$	$6 \frac{9}{12}$ $-2 \frac{7}{12}$	$5 - 2 \frac{10}{12}$
	12 	12 	12 	12 	12
	$5 \frac{1}{12} + 2 \frac{5}{12}$	$6 \frac{3}{12} + 2 \frac{9}{12}$	$4 \frac{5}{12} \\ + 2 \frac{10}{12}$	$4 \frac{9}{12} + 2 \frac{7}{12}$	5 - 2 $\frac{3}{12}$
Set C ₂	Set C	Set C	Set C	Set C	Set C
Set	$6 \frac{1}{12}$	$5 \frac{3}{12}$	$5 \frac{5}{12}$	$6 \frac{9}{12}$	5
	$-1 \frac{5}{12}$	$-1 \frac{9}{12}$	$-2 \frac{10}{12}$	$-2 \frac{7}{12}$	$-2 \frac{10}{12}$
	Set C	Set C	Set C	Set C	Set C



Answer Cards (Set C)

5th Grade - Readiness Standard 5 - 4.NF.3c

Storage Suggestions: Copy the **Problem (Set C)** cards and **Answer (Set C)** cards in two different colors. Store 1 set of each in a sealable bag for each pair of students.

Set	C 1	Set	C2
7	$4\frac{2}{3}$	7 <u>1</u> 12 Set C	$4\frac{2}{3}$
$7 \frac{1}{4}$	$3\frac{1}{2}$	$7 \frac{1}{4}$	$3\frac{1}{2}$
7	2	$7 \frac{1}{3}$	2
9 Set C	$4 \frac{1}{6}$ Set C	9 Set C	$4 \frac{1}{6}$ Set C
2	$2 \frac{1}{6}$	$2 \frac{3}{4}$	$2 \frac{1}{6}$



<i>Q</i> ₁	
	What is the problem about?
<i>Q</i> ₂	
	What do I need to find?
Q ₃	
	What do I know?
<i>Q</i> ₄	
	What can I try?
<i>Q</i> 5	
	Does my answer make sense?



 Q_1 . What is the problem about?

Q₂. What do I need to find?

 Q_3 . What do I know?

*Q*₄. What can I try?

Q₅. Does my answer make sense?