6th Grade
Tier 2 Intervention Lessons

Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for 6.NS.1: Multiply and divide fractions

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

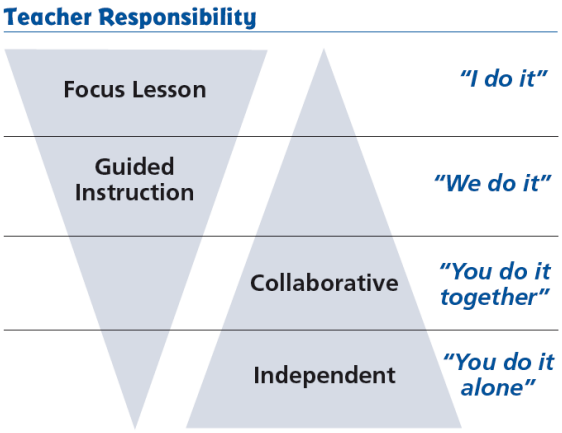


Figure 1

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

Planning Guide: Session 1

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Recommended Actions	
Beginning *(15 min.)*	Review 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 reflect 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.)*	➢ Assess each student's progress using **Quick Check – Form A** ➢ Guide students to self-correct their **Quick Check – Form A** ➢ Guide students to chart their progress 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 did not meet the learning goal o Group 2 – Include students who met or exceeded the learning goal

6th Grade Fall Guided Review

Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

1.

Divide: $6 \div \frac{1}{4}$

○ $\frac{1}{24}$ ○ $\frac{6}{4}$ ○ $\frac{4}{6}$ ○ 24

2.

Divide: $8 \div \frac{1}{2}$

○ $\frac{1}{16}$ ○ $\frac{8}{2}$ ○ $\frac{2}{8}$ ○ 16

3.

Divide: $7 \div \frac{1}{4}$

○ $\frac{28}{1}$ ○ $\frac{7}{4}$ ○ $\frac{4}{7}$ ○ $\frac{1}{28}$

6th Grade Winter Guided Review

Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

1.

Divide: $10 \div \frac{1}{2}$

○ $\frac{10}{2}$ ○ $\frac{1}{20}$ ○ $\frac{2}{10}$ ○ 20

2.

Divide: $6 \div \frac{1}{3}$

○ $\frac{6}{3}$ ○ $\frac{3}{6}$ ○ 18 ○ $\frac{1}{18}$

3.

Divide: $4 \div \frac{1}{5}$

○ $\frac{20}{1}$ ○ $\frac{5}{4}$ ○ $\frac{4}{5}$ ○ $\frac{1}{20}$

6th Grade Spring Guided Review

Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

1.

Divide: $11 \div \frac{1}{3}$

○ $\frac{11}{3}$ ○ 33 ○ $\frac{3}{11}$ ○ $\frac{1}{33}$

2.

Divide: $5 \div \frac{1}{4}$

○ $\frac{1}{20}$ ○ $\frac{4}{5}$ ○ $\frac{5}{4}$ ○ 20

3.

Divide: $9 \div \frac{1}{6}$

○ $\frac{6}{9}$ ○ $\frac{9}{6}$ ○ $\frac{54}{1}$ ○ $\frac{1}{54}$

Session 1: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I remember today about dividing a whole number by a unit fraction?

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form A

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $2 \div \frac{1}{3} = \_\_\_\_\_$	**2.** $3 \div \frac{1}{4} = \_\_\_\_\_$
3. $6 \div \frac{1}{4} = \_\_\_\_\_$	**4.** $5 \div \frac{1}{9} = \_\_\_\_\_$
5. $9 \div \frac{1}{3} = \_\_\_\_\_$	**6.** $2 \div \frac{1}{4} = \_\_\_\_\_$

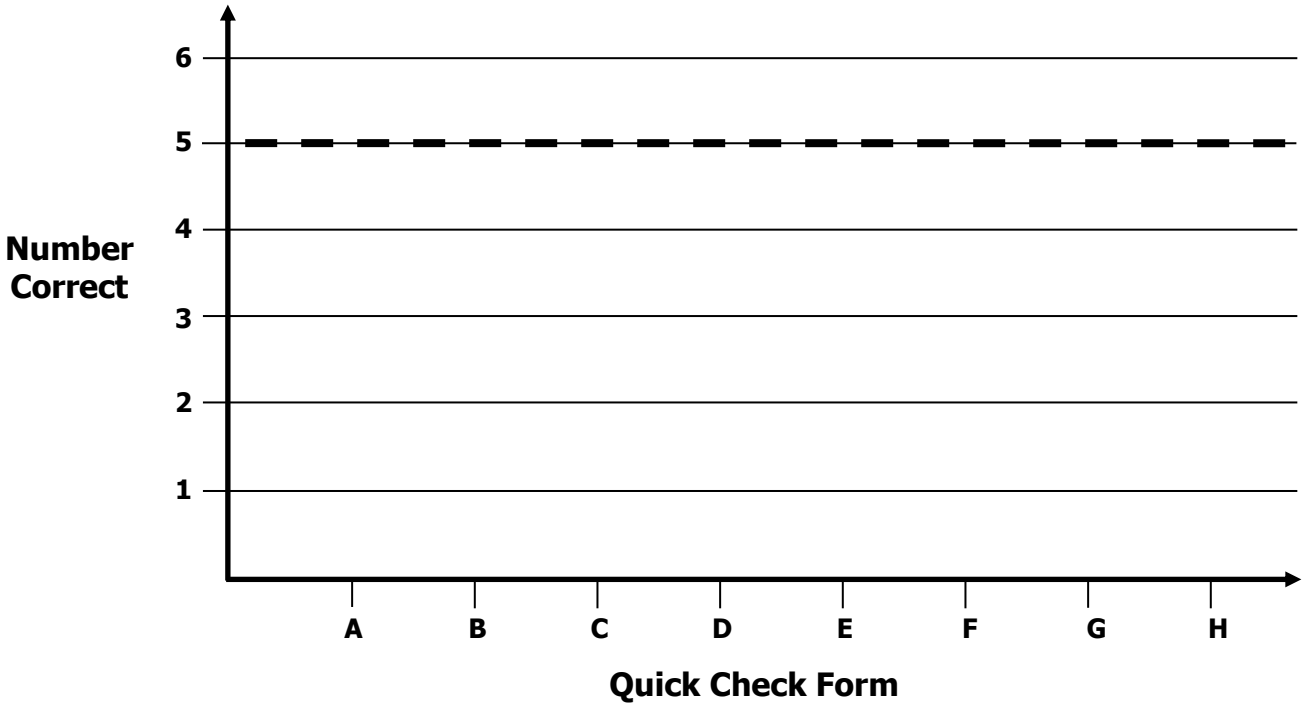
Growth Chart

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

<table>
<tr><th colspan="3">Recommended Actions</th></tr>
<tr><td>Beginning
(5 min.)</td><td colspan="2">➢ Review the learning target with the whole group and ask each student to set a goal for today's learning</td></tr>
<tr><td>Middle
(15 min.)</td><td>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: Fold fraction squares to divide a whole number by a unit fraction
Session 3: Draw on fraction squares to divide a whole number by a unit fraction
Session 4: Use multiplication to divide a unit fraction by a whole number</td><td>Group 2: (Students who met the learning goal)

➢ Independent practice – "You do alone"

Activity: Division Match-up!

(Look for additional activities in 5th grade core instruction resources.)</td></tr>
<tr><td>End
(10 min.)</td><td colspan="2">➢ Bring the students back together.
➢ Ask students to reflect on their progress towards the learning target
o What did I learn today about dividing a whole number by a unit fraction?
o How confident do you feel about dividing a whole number by a unit fraction 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</td></tr>
<tr><td>After</td><td colspan="2">➢ 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</td></tr>
</table>

Session 2: Modeling (I Do)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach has 2 pounds of ground beef and is planning to make hamburgers. If he wants to make each hambuger equal to $\frac{1}{3}$ of a pound, how many hamburgers can he make?

Session 2: Modeling (I Do – Visual Support)

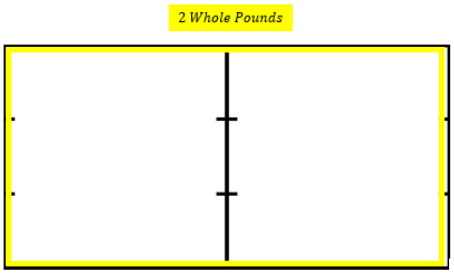
6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

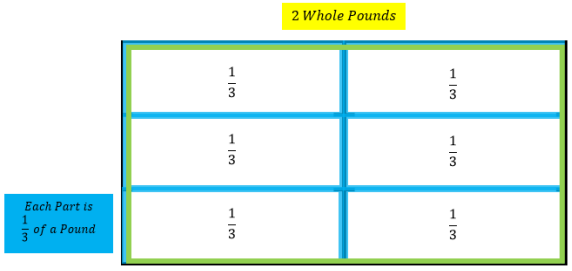
Zach has 2 pounds of ground beef and is planning to make hamburgers. If he wants to make each hambuger equal to $\frac{1}{3}$ of a pound, how many hamburgers can he make?

Outline 2 wholes



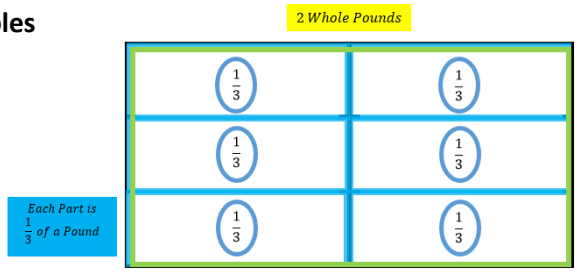
$$2 \div \frac{1}{3}$$

Outline parts of 1 third



$$2 \div \frac{1}{3}$$

Find how many parts that make 2 wholes



$$2 \div \frac{1}{3} = 6$$

Session 2: Modeling (I Do - Teacher Notes)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach has 2 pounds of ground beef and is planning to make hamburgers. If he wants to make each hambuger equal to $\frac{1}{3}$ of a pound, how many hamburgers can he make?

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 Zach making hamburgers.

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

I need to find how many hamburgers Zach can make.

Third, I need to determine what I know.

I know that he has 2 pounds of ground beef and plans to make each hambuger equal to $\frac{1}{3}$ of a pound.

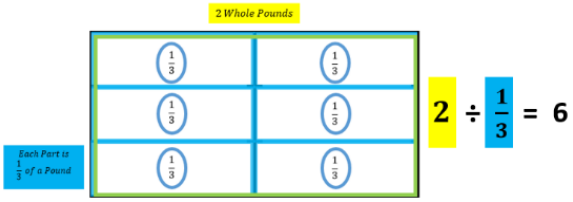
Fourth, I need to figure out what I can try.

I am going to try modelling this situation using square pieces of paper.
(Hold up 2 squares connected together from *the 2nd set of squares on* ***page 10***, write 2 whole pounds on the Modeling page and outline the 2 squares with yellow highlighter.)

I will begin by folding each square into thirds to represent each hamburger.
(Fold the squares into thirds…outline and label each third using a blue highlighter.)

Each section represents 1 of the hamburgers…we need to find how many make up 2 wholes.
(Circle each label.)

I see that 2 whole pounds are made of 6 equal parts of 1 third.
(Count the 6 sections.)



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

I found that Zach could make 6 hamburgers. It makes sense because I represented the 2 pounds of ground beef with 2 paper squares and folded them into equal parts of 1 third to find how many can be made from 2 pounds.

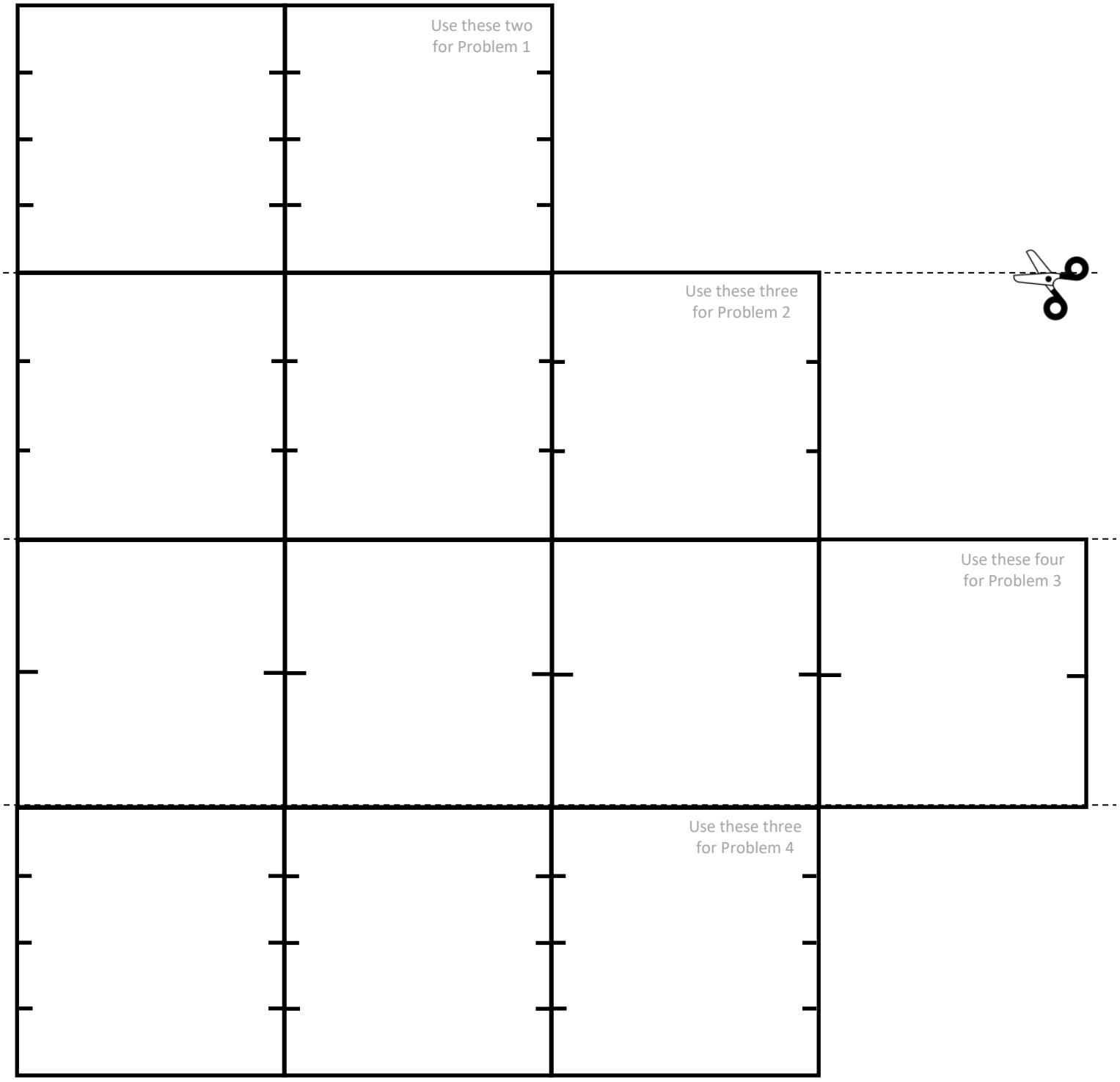
Whole Numbers to Divide (Set 1)

6th Grade - Readiness Standard 7 - 5.NF.7b

Directions: Provide each student both sets of squares for the Guided Practice.

Note: The teacher may use the two squares in the 1st row for the Modeling problem.

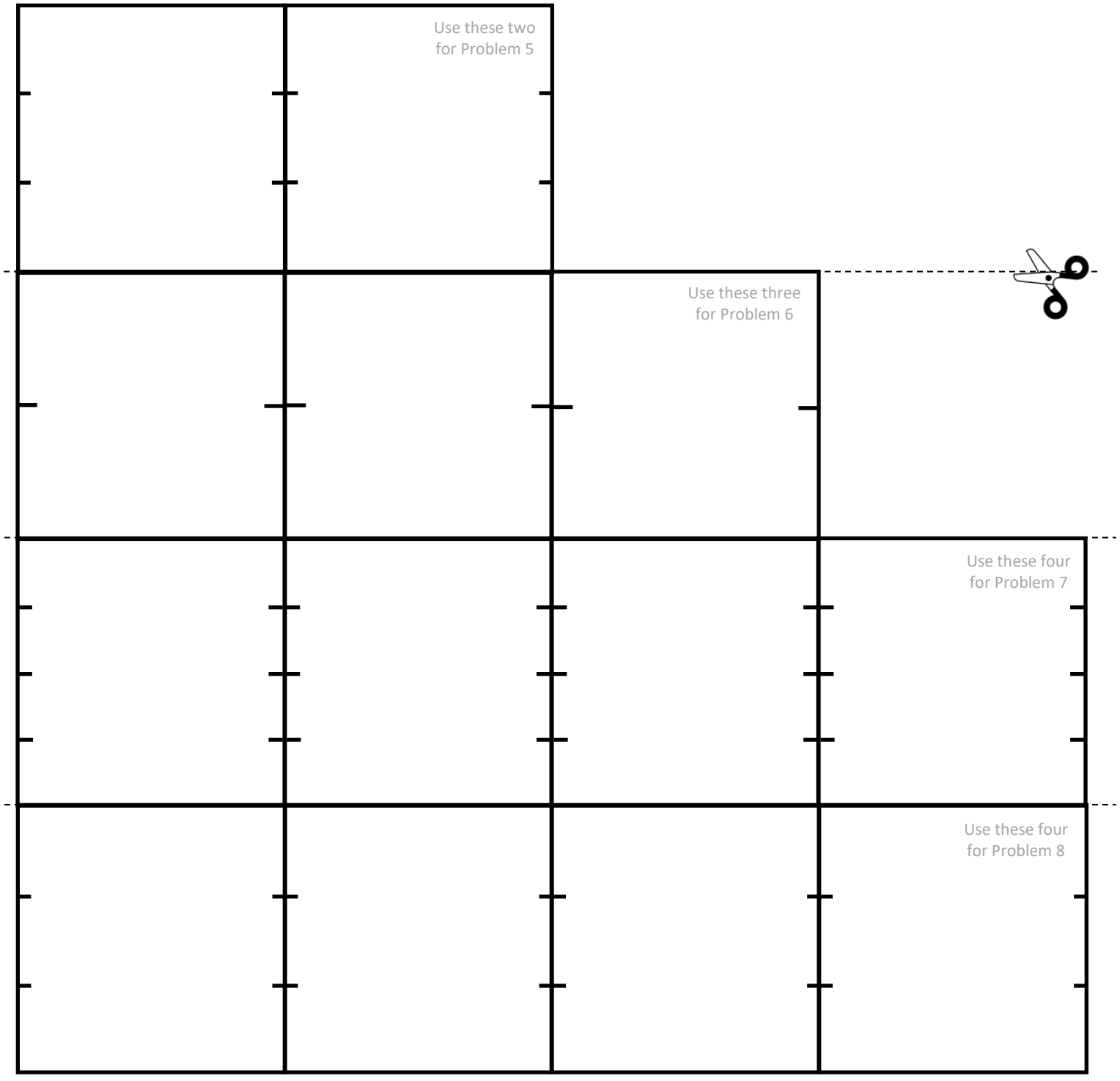
(We Do Together, problems 1-4)



Whole Numbers to Divide (Set 2)

6th Grade - Readiness Standard 7 - 5.NF.7b

(You Do Together, problems 5-8)



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Session 2: Guided Practice (We Do)

Materials:

- Templates for Squares (2 sheets per student)
- 1 yellow and 1 blue highlighter per student

We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
- Fold and highlight fraction squares to find each answer.

1. $2 \div \frac{1}{4}$	**2.** $3 \div \frac{1}{3}$
3. $4 \div \frac{1}{2}$	**4.** $3 \div \frac{1}{4}$

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

- Students take turns leading to divide whole numbers by unit fractions.

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

Name _____ Date _____

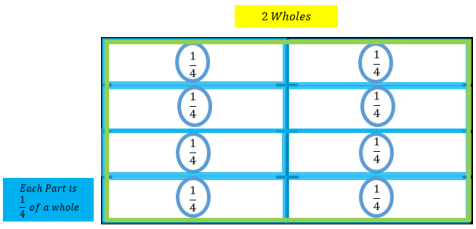
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

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

Materials:

- Templates for Squares (2 sheets per student)
- 1 yellow and 1 blue highlighter per student



We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
- Fold and highlight fraction squares to find each answer.

1. $2 \div \frac{1}{4} = 8$ *2 divided into groups of 1 fourth*	**2.** $3 \div \frac{1}{3} = 9$ *3 divided into groups of 1 third*
3. $4 \div \frac{1}{2} = 8$ *4 divided into groups of 1 half*	**4.** $3 \div \frac{1}{4} = 12$ *3 divided into groups of 1 fourth*

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

- Students take turns leading to divide whole numbers by unit fractions.

5. $2 \div \frac{1}{3} = 6$ *2 divided into groups of 1 third*	**6.** $3 \div \frac{1}{2} = 6$ *3 divided into groups of 1 half*
7. $4 \div \frac{1}{4} = 16$ *4 divided into groups of 1 fourth*	**8.** $4 \div \frac{1}{3} = 12$ *4 divided into groups of 1 third*

Session 2: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form B

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $4 \div \frac{1}{5} = \_\_\_\_\_$	**2.** $2 \div \frac{1}{8} = \_\_\_\_\_$
3. $5 \div \frac{1}{3} = \_\_\_\_\_$	**4.** $8 \div \frac{1}{8} = \_\_\_\_\_$
5. $9 \div \frac{1}{7} = \_\_\_\_\_$	**6.** $3 \div \frac{1}{6} = \_\_\_\_\_$

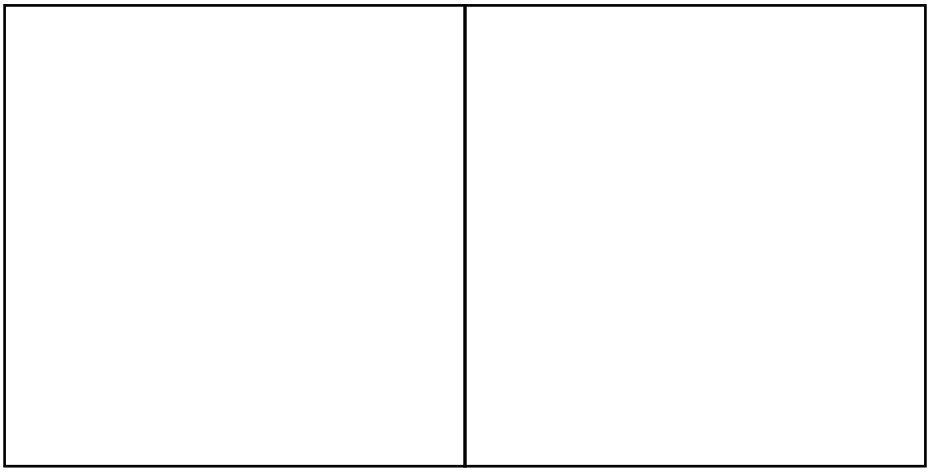
Session 3: Modeling (I Do)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach loves to eat jellybeans, but yesterday he ate 2 cups of jellybeans and felt sick. If he ate the $\frac{1}{4}$ of a cup each time he walked by the jellybean jar, how many times did he eat jellybeans?



Session 3: Modeling (I Do – Visual Support)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

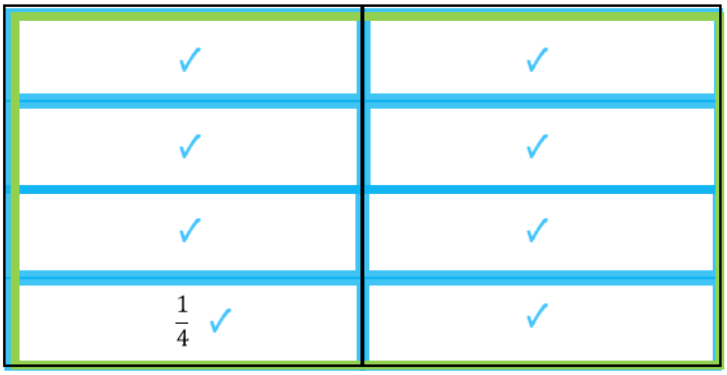
Readiness for multiplying and dividing fractions

Zach loves to eat jellybeans, but yesterday he ate 2 cups of jellybeans and felt sick. If he ate the $\frac{1}{4}$ of a cup each time he walked by the jellybean jar, how many times did he eat jellybeans?

$$\mathbf{2} \div \mathbf{\frac{1}{4}} = 8$$

2 Cups of Jellybeans

Each part is $\frac{1}{4}$ *of a whole*



Session 3: **Modeling** (I Do - Teacher Notes)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach loves to eat jellybeans, but yesterday he ate 2 cups of jellybeans and felt sick. If he ate the $\frac{1}{4}$ of a cup each time he walked by the jellybean jar, how many times did he eat jellybeans?

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 Zach eating jellybeans.

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

I need to find how many times he ate jellybeans.

Third, I need to determine what I know.

I know that he ate 2 cups of jellybeans and he ate $\frac{1}{4}$ of a cup each time he walked by the jellybean jar.

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

I am going to try using an area drawing to find how many $\frac{1}{4}$ cups are in 2 cups.
(Write the division problem above the 2 squares and outline them using a yellow highlighter.)

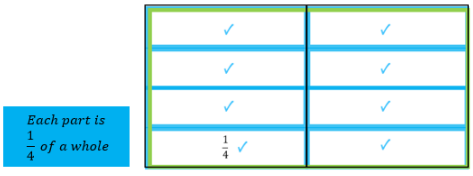
I will begin by separating each whole cup into the 1-quarter cup servings.
(Use the guide for drawing fractions to draw lines separating each cup into quarters, label them and outline each quarter with a blue highlighter.)

To see how many times he ate jellybeans, I will count the total number of 1-quarter servings.
(Point to and count each serving.)

There are 8 1-quarter cup servings in 2 cups of jellybeans.

$2 \div \frac{1}{4} = 8$

2 Cups of Jellybeans



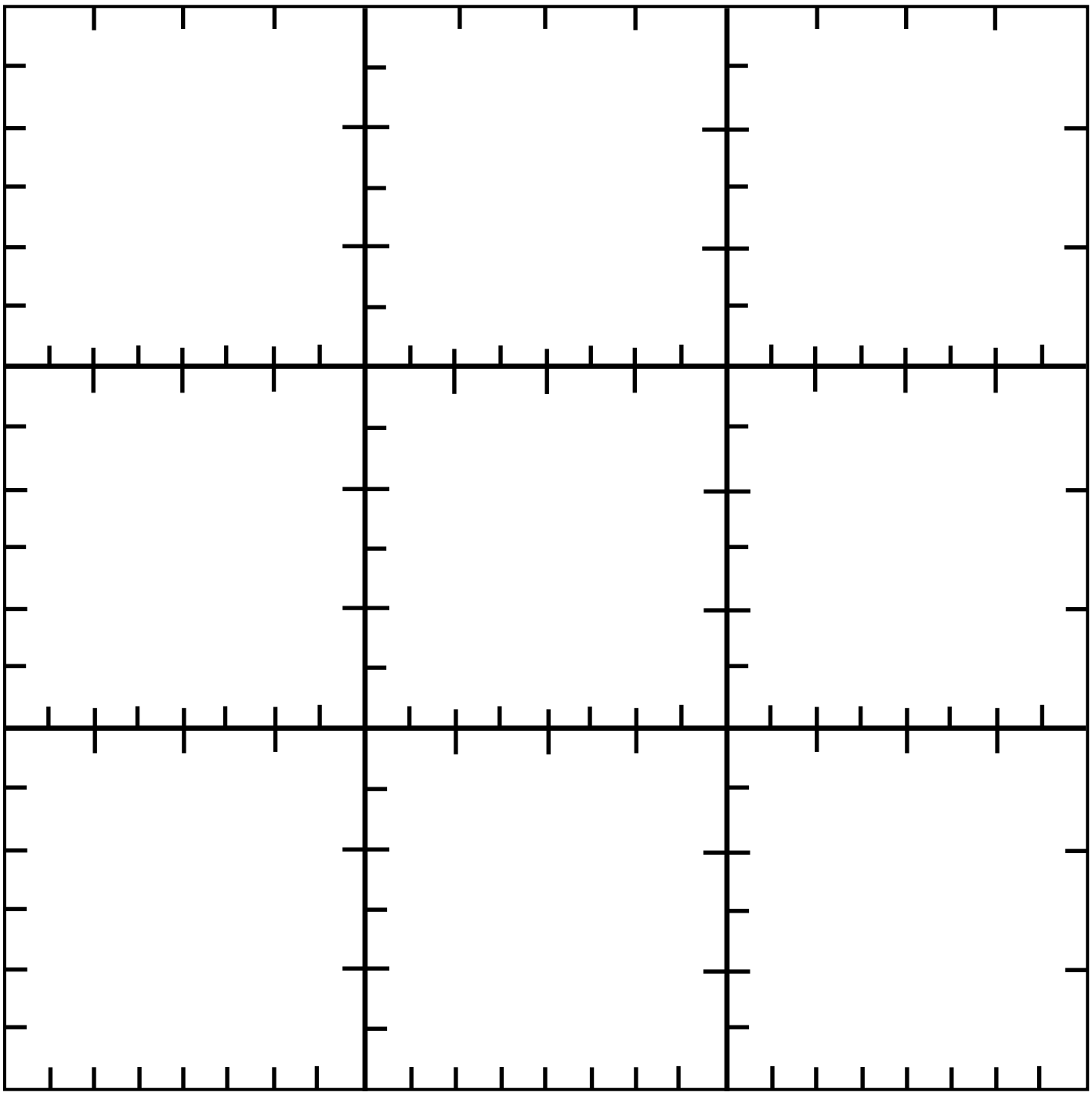
Last, I need to make sure that my answer makes sense.

I found that Zach ate jellybeans 8 times. It makes sense because I represented the 2 cups using squares and separated each cup into 1 quarter equal parts to find how many of these parts equal 2 wholes.

Guides for Drawing Fractions

Directions: Copy on cardstock and cut out 1 square per student.

Note: The sides of each square provide a guide to draw halves, thirds, fourths, sixths and eighths. Rotate the square to use the side required for each problem.



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

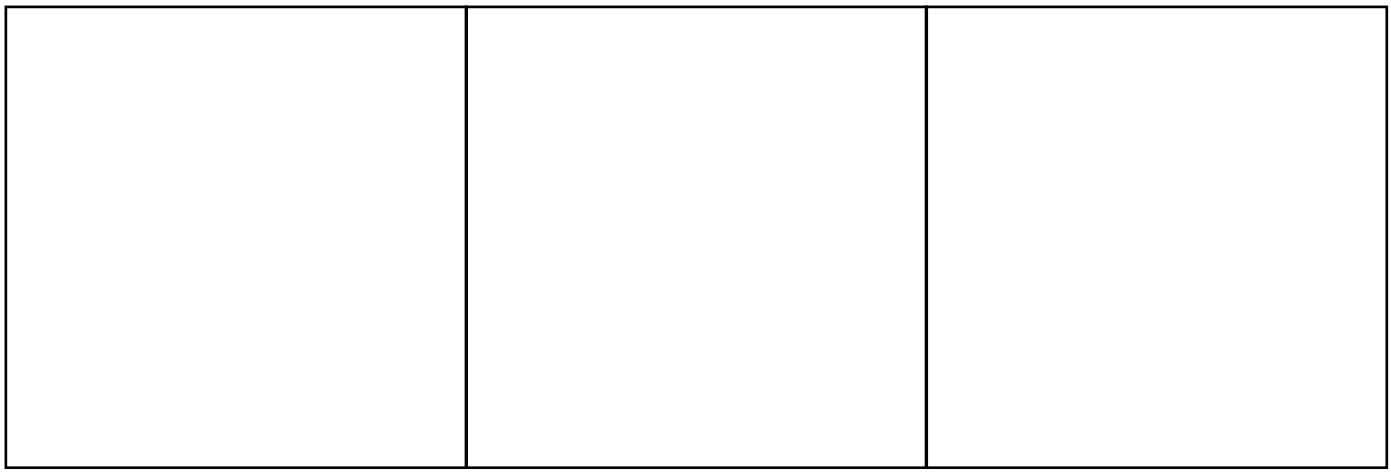
Learning Target: I will divide a whole number by a unit fraction

Session 3: Guided Practice (We Do)

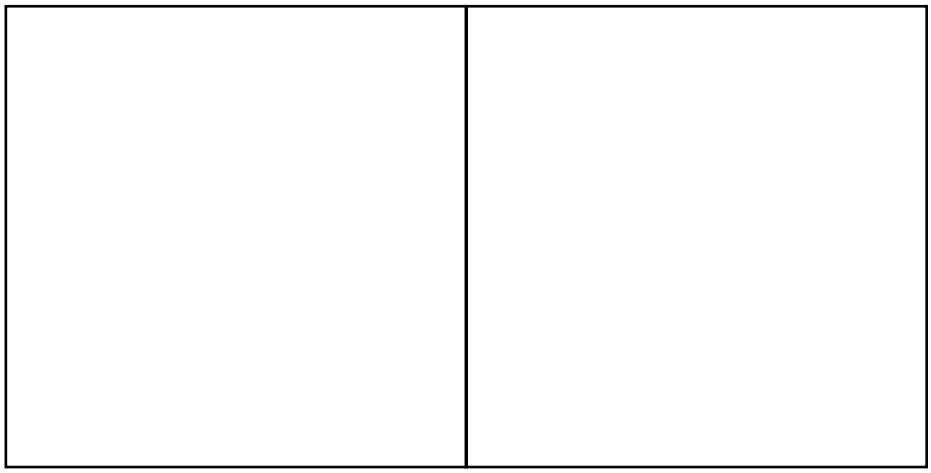
We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-eighth
- Use the square guide to help you draw each problem.

1. $3 \div \frac{1}{8} =$ _____



2. $2 \div \frac{1}{6} =$ _____



Name _____ Date _____

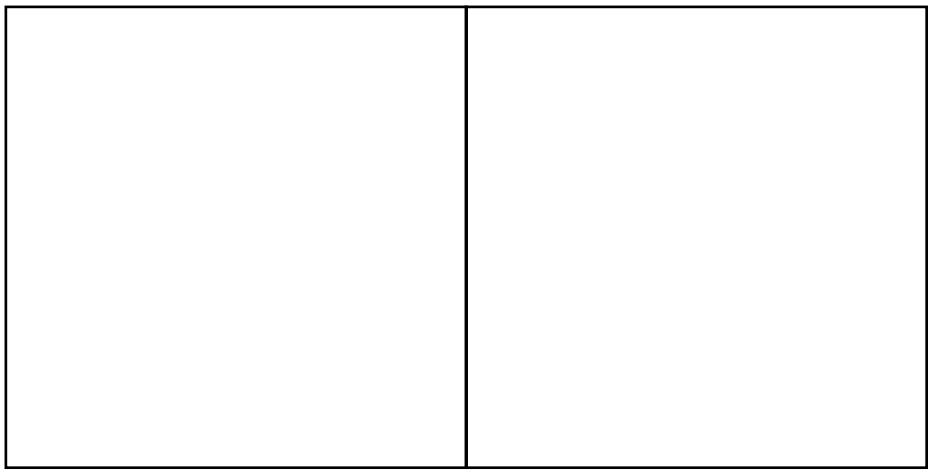
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

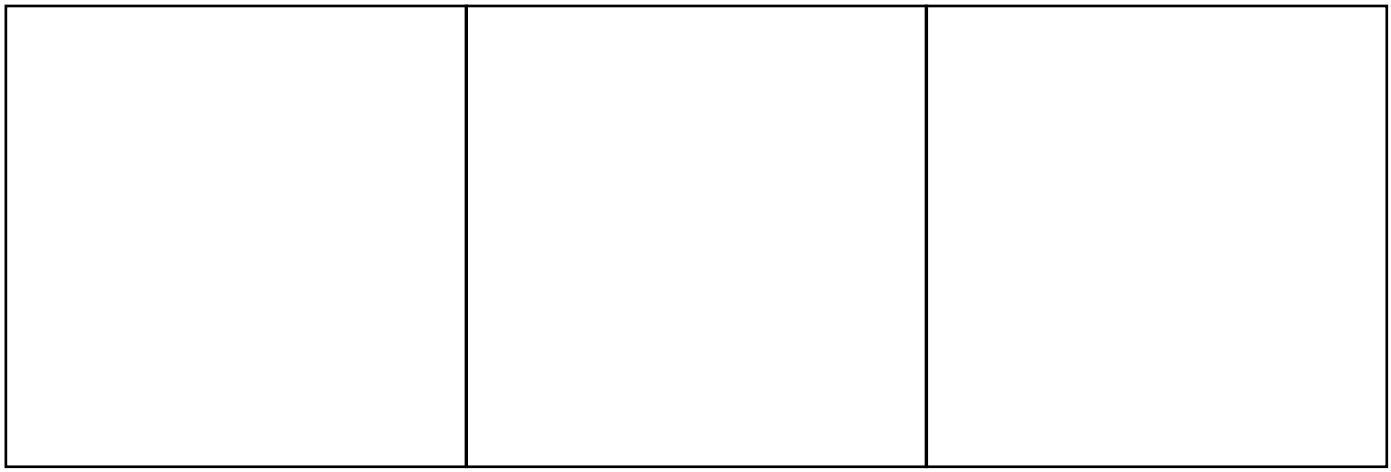
Session 3: Guided Practice (We Do – Continued)

We Do Together: (Continued)

3. $2 \div \frac{1}{8} =$ _____



4. $3 \div \frac{1}{2} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

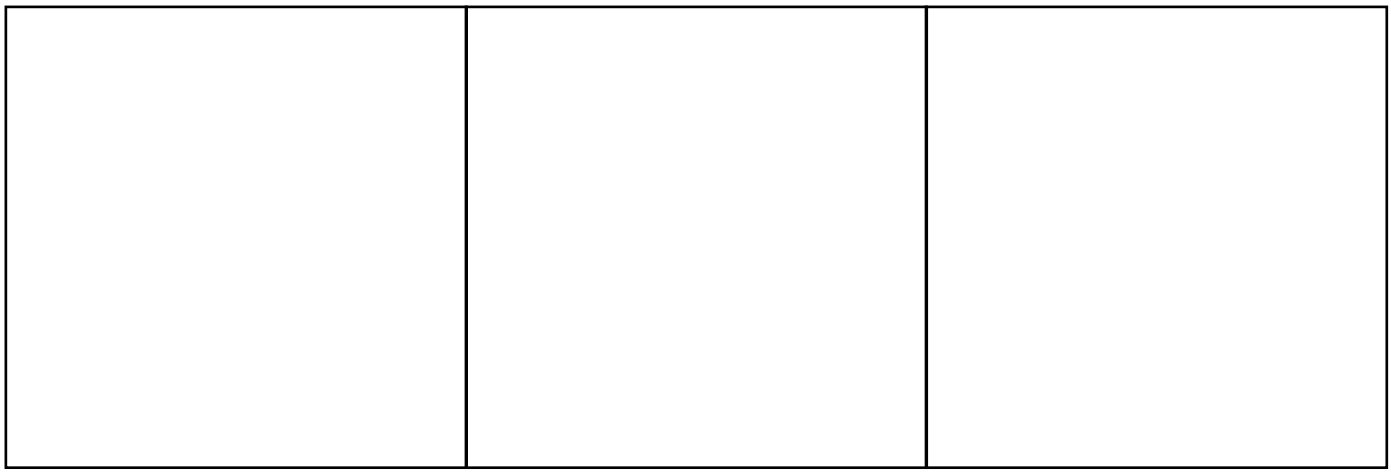
Learning Target: I will divide a whole number by a unit fraction

Session 3: Guided Practice (We Do – Continued)

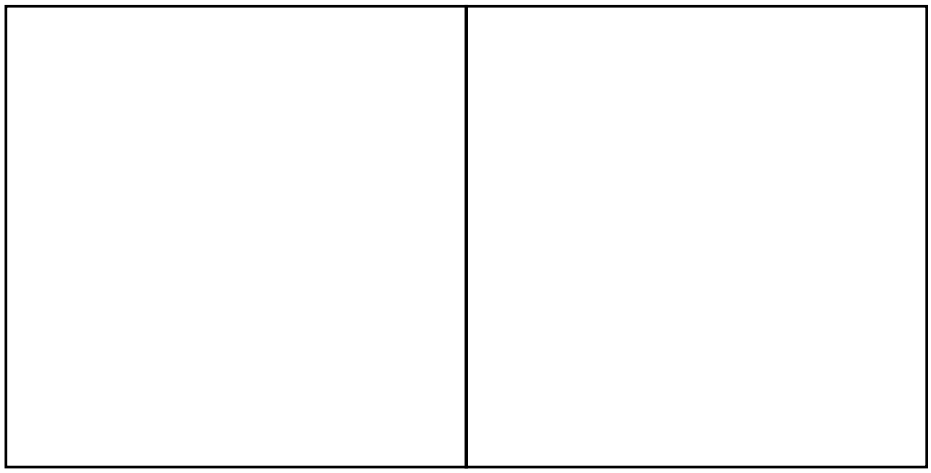
You Do Together: (Student Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-fourth
- Use the square guide to help you draw each problem.

5. $3 \div \frac{1}{4} =$ _____



6. $2 \div \frac{1}{3} =$ _____



Name _____ Date _____

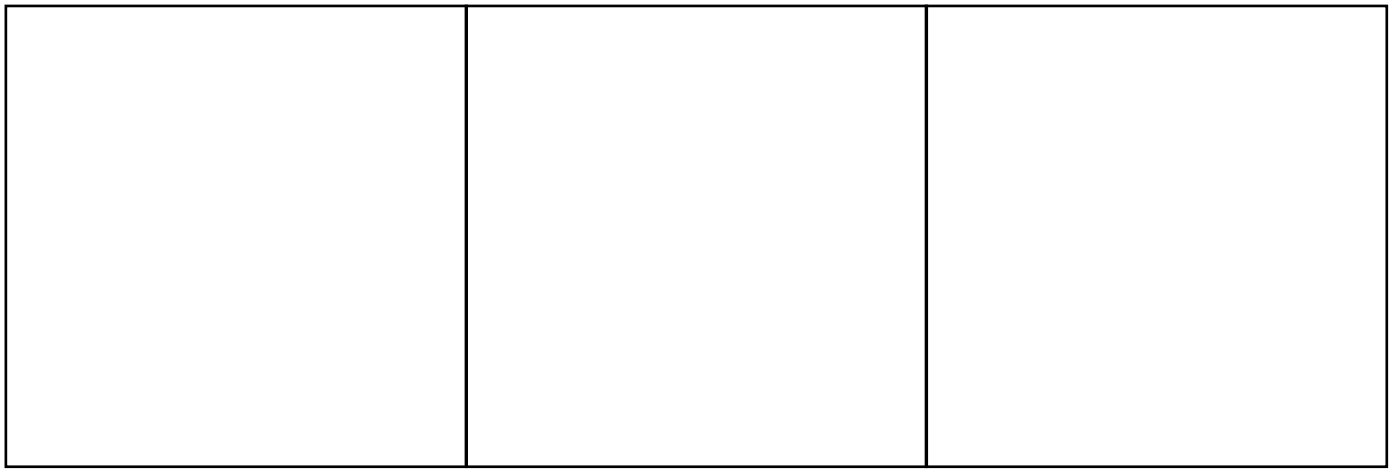
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

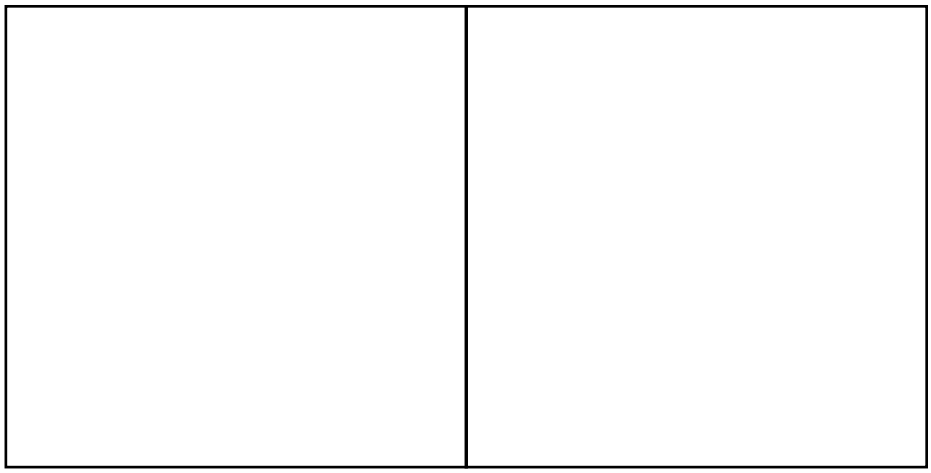
Session 3: Guided Practice (We Do – Continued)

You Do Together: (Continued)

7. $3 \div \frac{1}{6} =$ _____



8. $2 \div \frac{1}{4} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

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

We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: How many groups of 1 eighth make up 3 wholes?
- Use the square guide to help you draw each problem.

3 divided into groups of 1 eighth

1. $3 \div \frac{1}{8} =$ 24

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

2 divided into groups of 1 sixth

2. $2 \div \frac{1}{6} =$ 12

✓	✓
✓	✓
✓	✓
✓	✓
✓	✓
$\frac{1}{6}$ ✓	✓

Session 3: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form C

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $3 \div \frac{1}{4} = \_\_\_\_\_$	**2.** $4 \div \frac{1}{6} = \_\_\_\_\_$
3. $5 \div \frac{1}{8} = \_\_\_\_\_$	**4.** $9 \div \frac{1}{3} = \_\_\_\_\_$
5. $8 \div \frac{1}{10} = \_\_\_\_\_$	**6.** $3 \div \frac{1}{6} = \_\_\_\_\_$

Session 4: Modeling (I Do)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

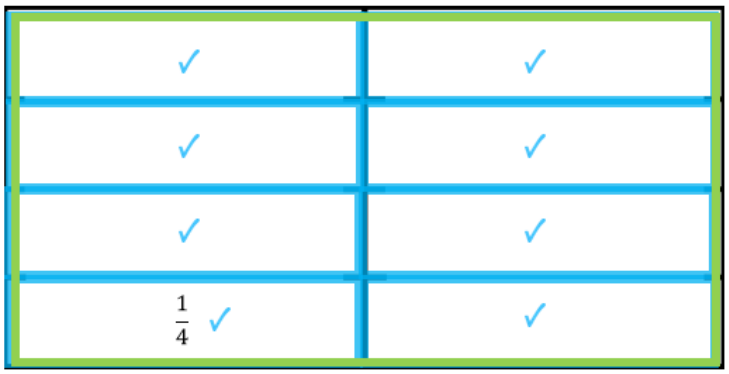
Readiness for multiplying and dividing fractions

Zach used an area drawing to find the answer to $2 \div \frac{1}{4}$. Look for structure in his drawing that would help write a multiplication problem that can be used to find the same answer.

$$2 \div \frac{1}{4} = 8$$

2 Wholes

Each part is $\frac{1}{4}$ *of a whole*



Session 4: Modeling (I Do – Visual Support)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach used an area drawing to find the answer to $2 \div \frac{1}{4}$. Look for structure in his drawing that would help write a multiplication problem that can be used to find the same answer.

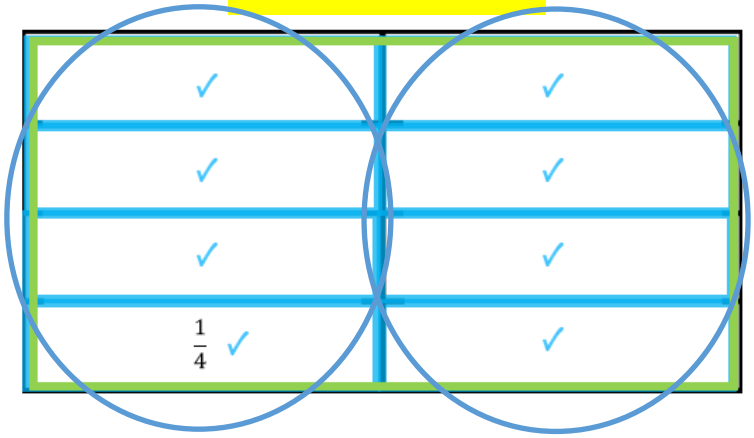
$$2 \div \frac{1}{4} = 8$$

$$2 \times 4 = 8$$

Each whole has 4 equal parts

2 Wholes

Each part is $\frac{1}{4}$ *of a whole*



Session 4: Modeling (I Do - Teacher Notes)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Zach used an area drawing to find the answer to $2 \div \frac{1}{4}$. Look for structure in his drawing that would help write a multiplication problem that can be used to find the same 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 Zach using an area drawing to divide a whole number by a unit fraction.

Second, I need to determine what I need to find.
I need to write a multiplication problem that I can use to find the same answer.

Third, I need to determine what I know.
I know that the drawing shows 2 wholes separated into equal parts of 1 fourths and the answer is 8.

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

I am going to try looking for a multiplication problem in the drawing.

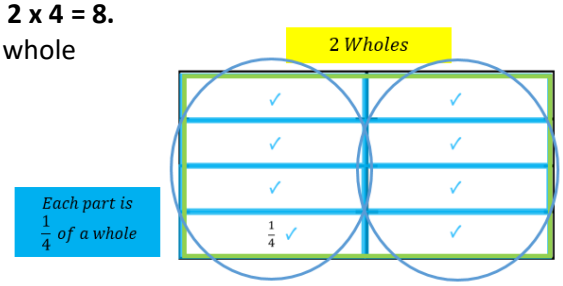
I notice that there are 2 groups of 4 fourths.
(Draw a circle around each whole.)

And…2 groups of 4 can be represented by the multiplication problem 2 x 4 = 8.
(Write "2 x 4 = 8" below the original division equation and write "Each whole has 4 equal parts" under the multiplication equation.)

$2 \div \frac{1}{4} = 8$

$2 \times 4 = 8$

Each whole has 4 equal parts



Can you see the multiplication problem 2 times 4 is equal to 8?

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

I found that multiplying the whole number by the denominator of the unit fraction will result in the same answer to the division problem. It makes sense because I can see both groups of equal parts in the math drawing. Let's see if it works for all of the guided practice problems.

Name _____ Date _____

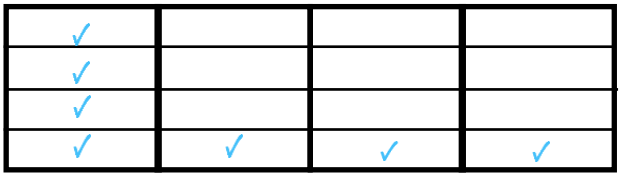
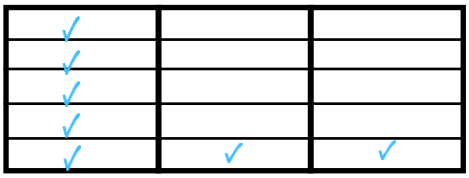
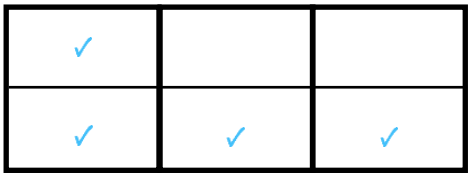
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Session 4: Guided Practice (We Do)

We Do Together: (Teacher Actions)

- Fold your paper to hide the math drawings. Then, multiply to find the answer to each division problem.
- Unfold your paper to check if your answer is correct.

	Divide Using Multiplication	Check Your Work
1. $4 \div \frac{1}{4} =$		
2. $3 \div \frac{1}{5} =$		
3. $2 \div \frac{1}{3} =$		
4. $3 \div \frac{1}{2} =$		

Name _____ Date _____

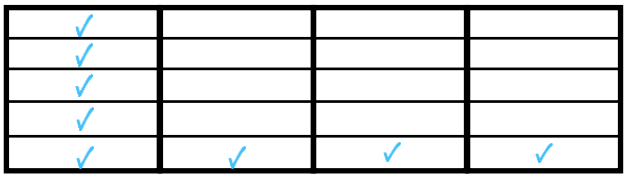
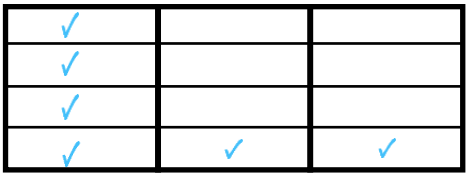
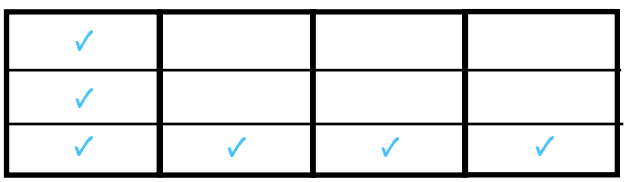
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Session 4: Guided Practice (We Do - Continued)

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

- Students take turns leading to find the answer to each division problem, then unfold to check each answer.

	Divide Using Multiplication	Check Your Work
5. $4 \div \frac{1}{5} =$		 4 x 5
6. $3 \div \frac{1}{4} =$		 3 x 4
7. $2 \div \frac{1}{3} =$		 2 x 3
8. $4 \div \frac{1}{3} =$		 4 x 3

Name _____ Date _____

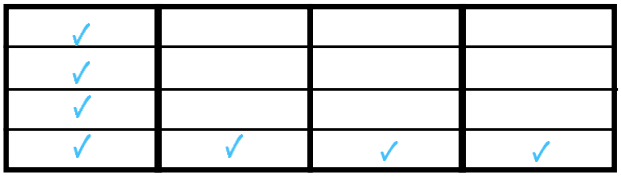
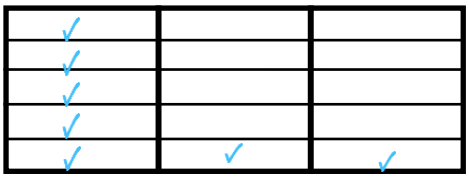
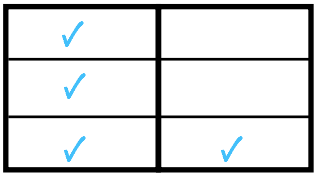
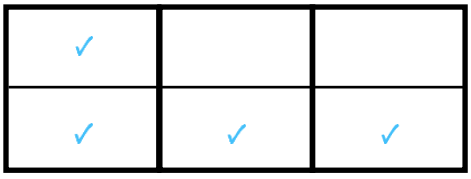
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

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

We Do Together: (Teacher Actions)

- Fold your paper to hide the math drawings. Then, multiply to find the answer to each division problem.
- Unfold your paper to check if your answer is correct.

	Divide Using Multiplication	Check Your Work
1. $4 \div \frac{1}{4} =$	$4 \times \frac{4}{1} = \frac{4 \times 4}{1 \times 1} = 16$	 4 x 4
2. $3 \div \frac{1}{5} =$	$3 \times \frac{5}{1} = \frac{3 \times 5}{1 \times 1} = 15$	 3 x 5
3. $2 \div \frac{1}{3} =$	$2 \times \frac{3}{1} = \frac{2 \times 3}{1 \times 1} = 6$	 2 x 3
4. $3 \div \frac{1}{2} =$	$3 \times \frac{2}{1} = \frac{3 \times 2}{1 \times 1} = 6$	 3 x 2

Session 4: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form D

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $2 \div \frac{1}{5} = \_\_\_\_\_$	**2.** $3 \div \frac{1}{2} = \_\_\_\_\_$
3. $5 \div \frac{1}{6} = \_\_\_\_\_$	**4.** $7 \div \frac{1}{8} = \_\_\_\_\_$
5. $9 \div \frac{1}{6} = \_\_\_\_\_$	**6.** $8 \div \frac{1}{2} = \_\_\_\_\_$

Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

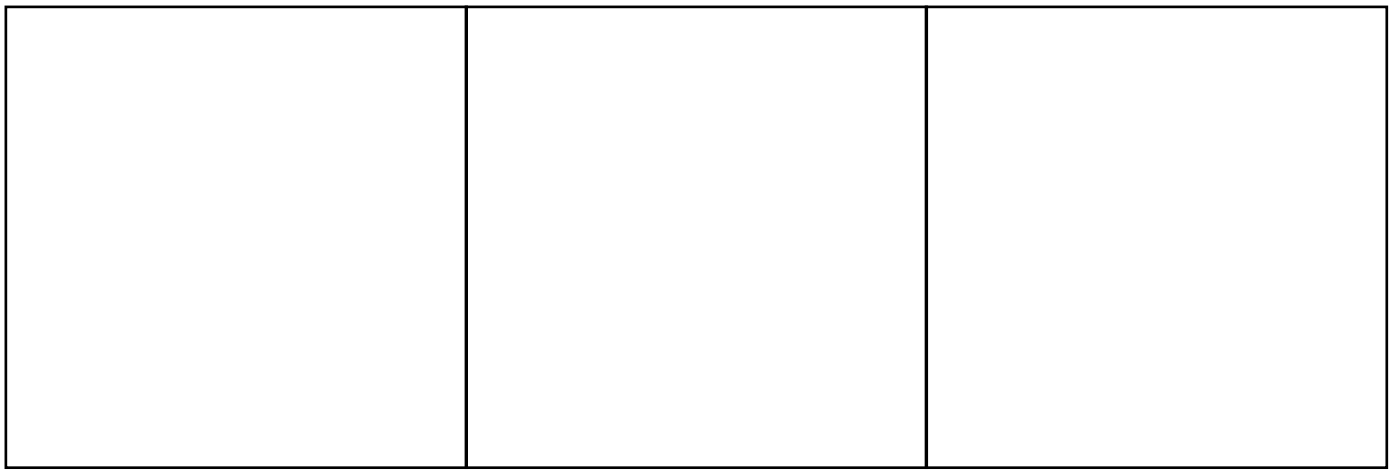
Learning Target: I will divide a whole number by a unit fraction

Session 5: Guided Practice (We Do)

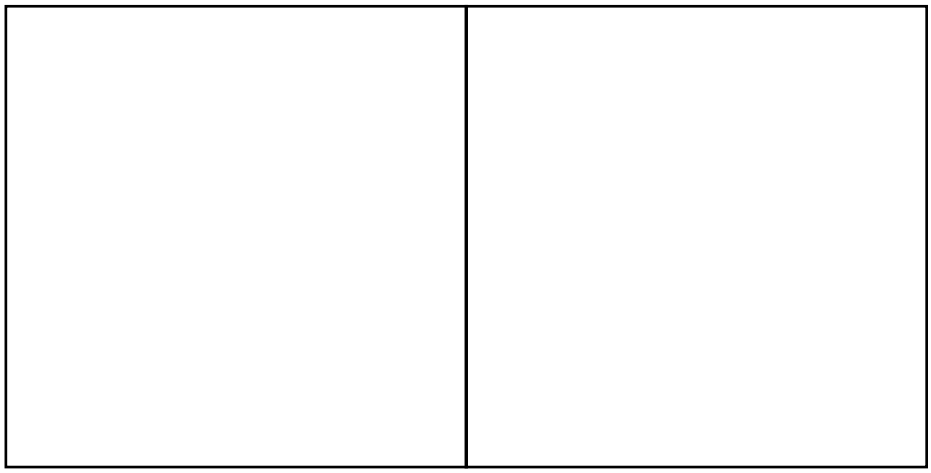
We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-sixth
- Use the square guide to help you draw each problem.

1. $3 \div \frac{1}{6} =$ _____



2. $2 \div \frac{1}{4} =$ _____



Name _____ Date _____

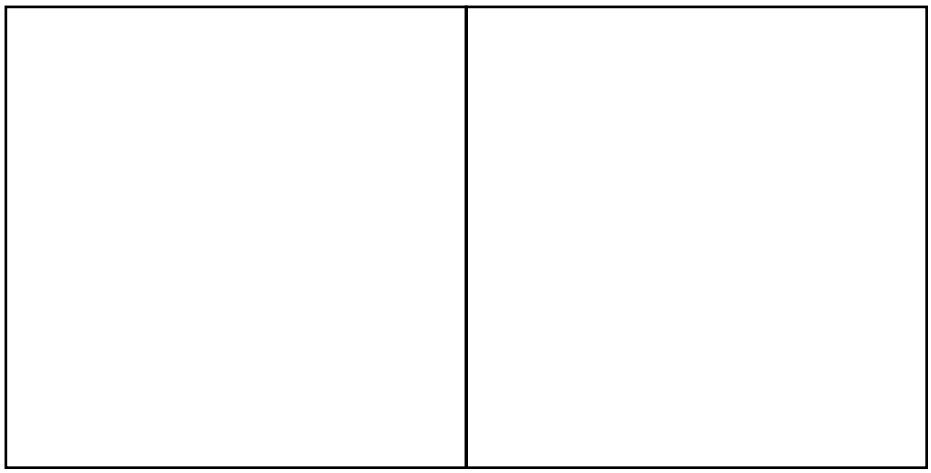
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

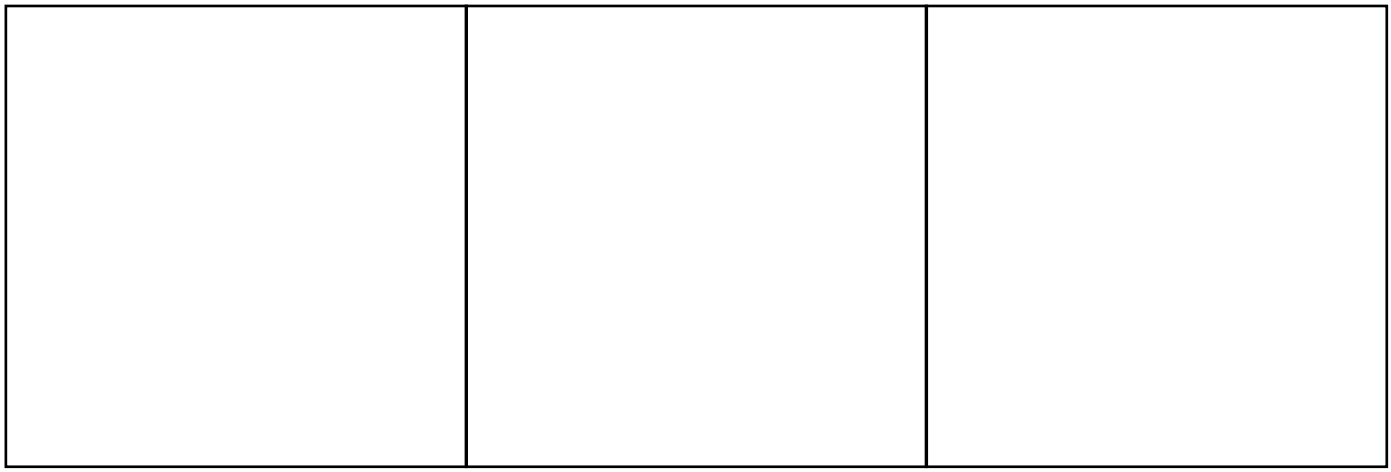
Session 5: Guided Practice (We Do – Continued)

We Do Together: (Continued)

3. $2 \div \frac{1}{2} =$ _____



4. $3 \div \frac{1}{8} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

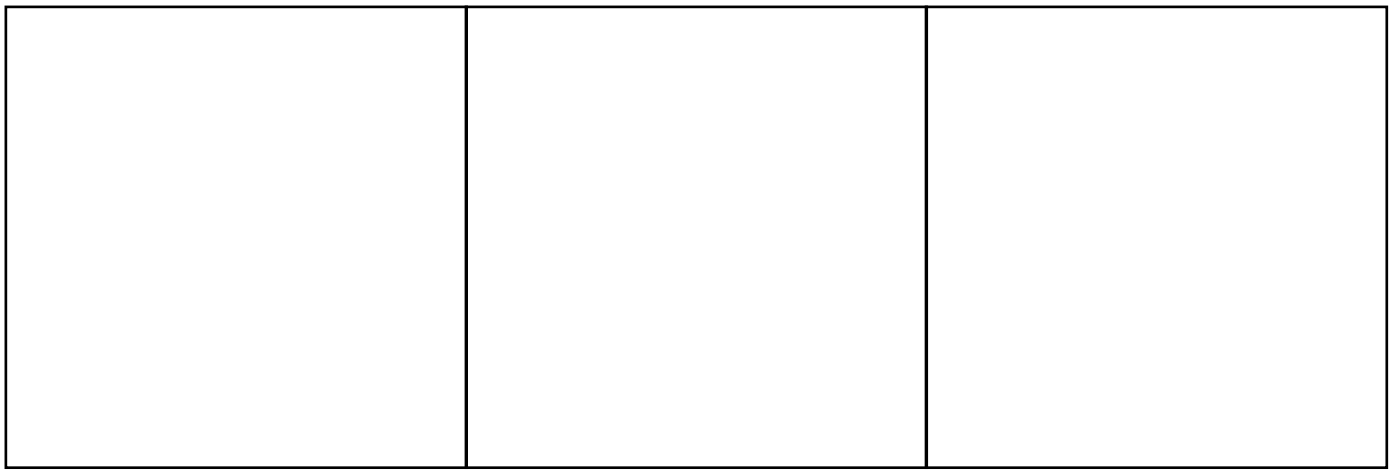
Learning Target: I will divide a whole number by a unit fraction

Session 5: Guided Practice (We Do – Continued)

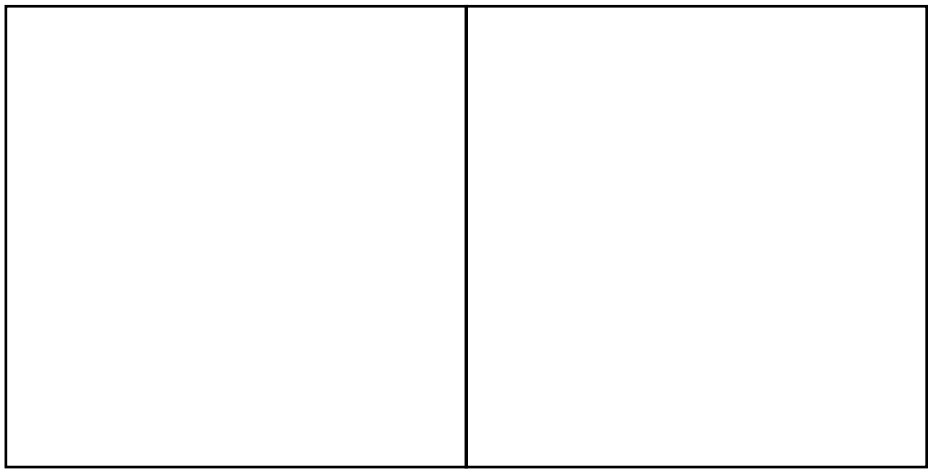
You Do Together: (Student Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-half
- Use the square guide to help you draw each problem.

5. $3 \div \frac{1}{2} =$ _____



6. $2 \div \frac{1}{6} =$ _____



Name _____ Date _____

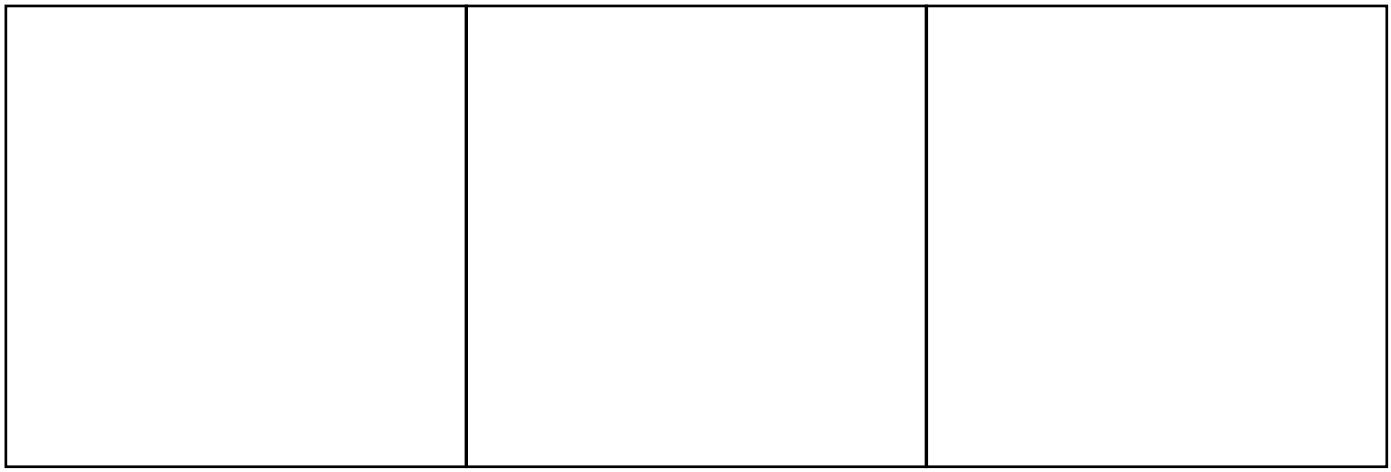
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

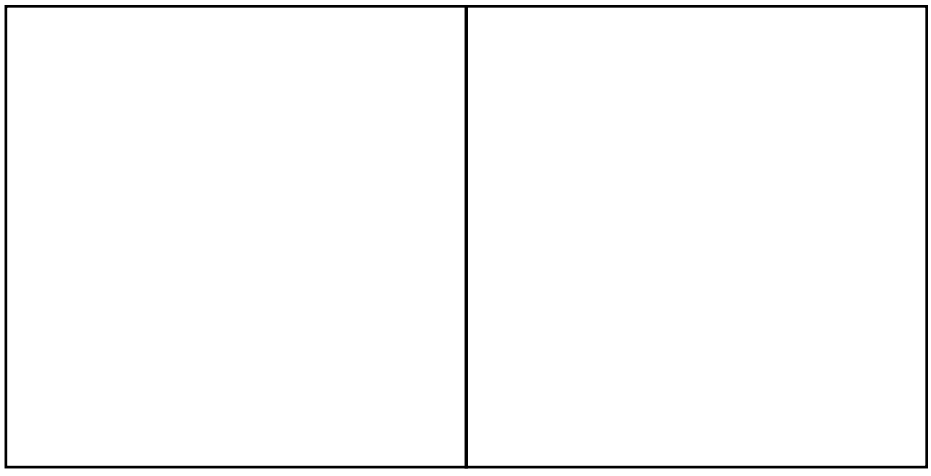
Session 5: Guided Practice (We Do – Continued)

You Do Together: (Continued)

7. $3 \div \frac{1}{4} =$ _____



8. $2 \div \frac{1}{8} =$ _____



Session 5: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form E

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $2 \div \frac{1}{3} = \_\_\_\_\_$	**2.** $3 \div \frac{1}{4} = \_\_\_\_\_$
3. $6 \div \frac{1}{4} = \_\_\_\_\_$	**4.** $5 \div \frac{1}{9} = \_\_\_\_\_$
5. $9 \div \frac{1}{3} = \_\_\_\_\_$	**6.** $2 \div \frac{1}{4} = \_\_\_\_\_$

Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

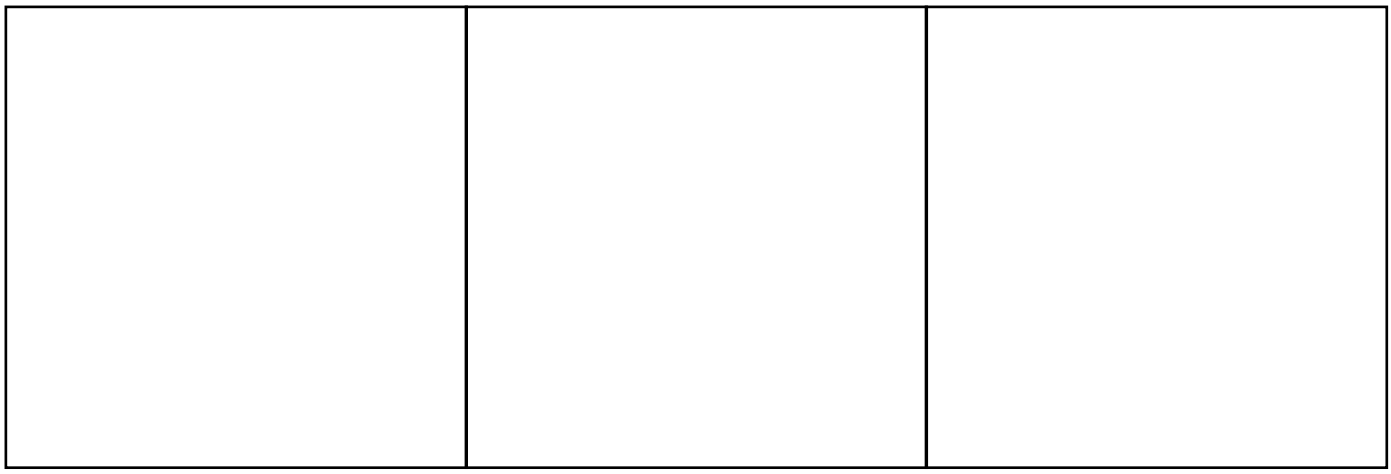
Learning Target: I will divide a whole number by a unit fraction

Session 6: Guided Practice (We Do)

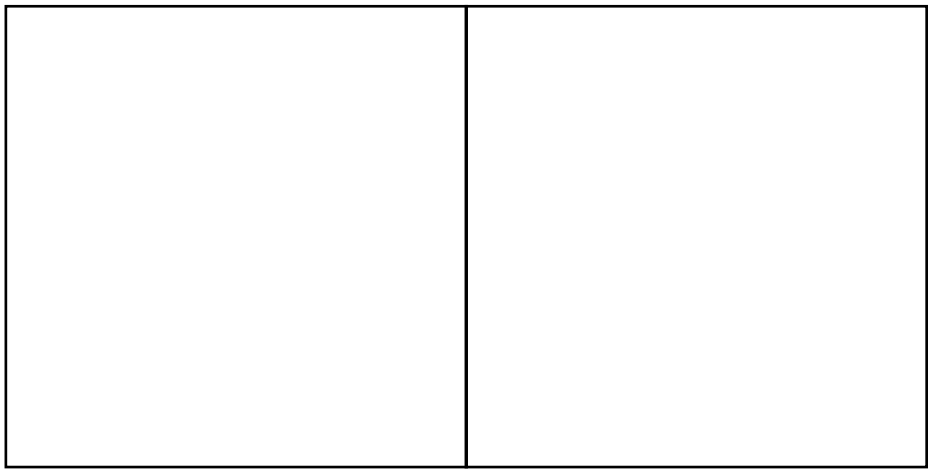
We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-eighth
- Use the square guide to help you draw each problem.

1. $3 \div \frac{1}{8} =$ _____



2. $2 \div \frac{1}{6} =$ _____



Name _____ Date _____

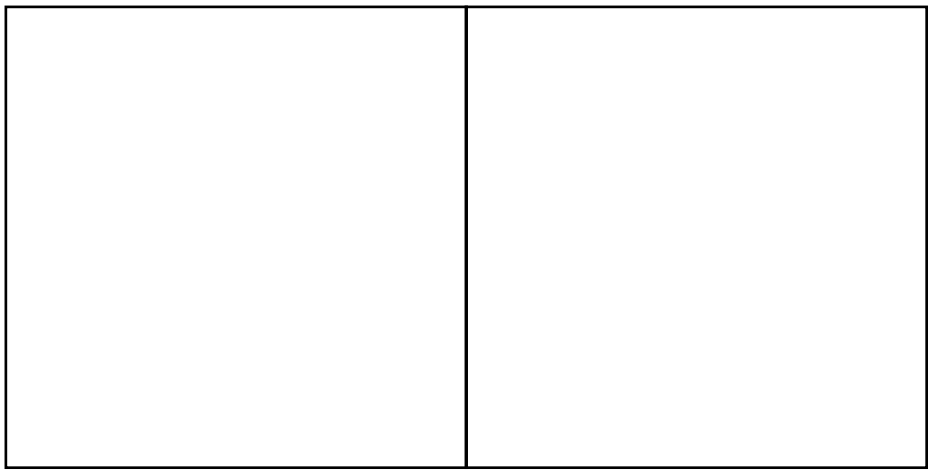
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

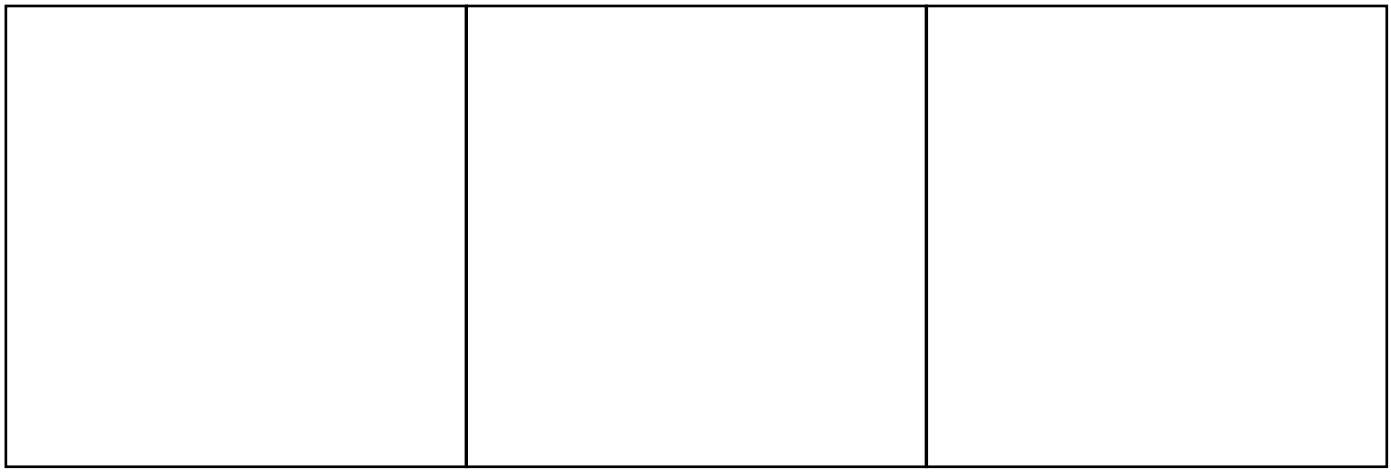
Session 6: Guided Practice (We Do – Continued)

We Do Together: (Continued)

3. $2 \div \frac{1}{8} =$ _____



4. $3 \div \frac{1}{2} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

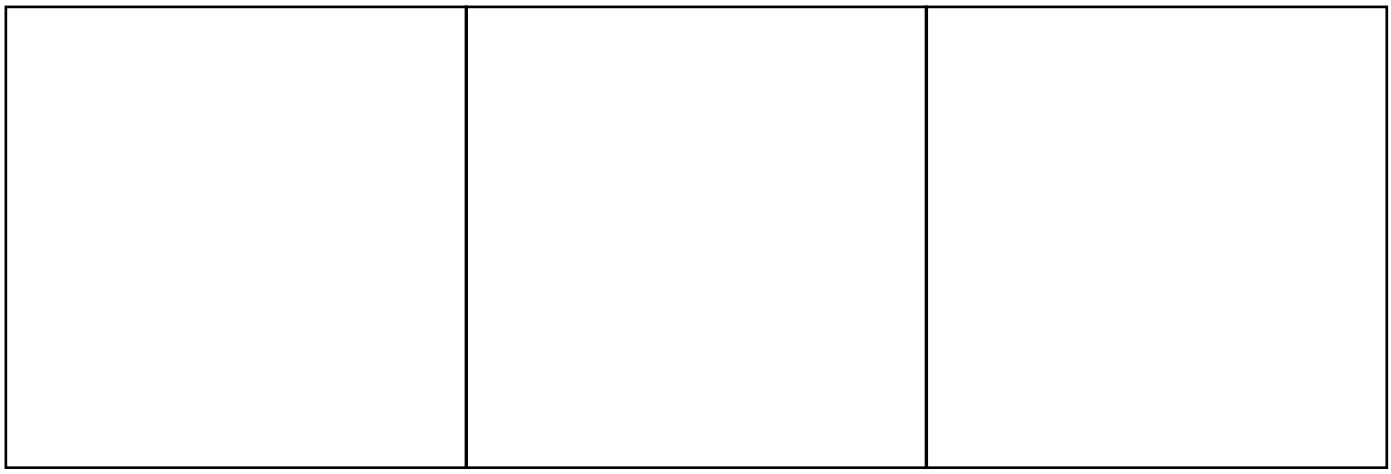
Learning Target: I will divide a whole number by a unit fraction

Session 6: Guided Practice (We Do – Continued)

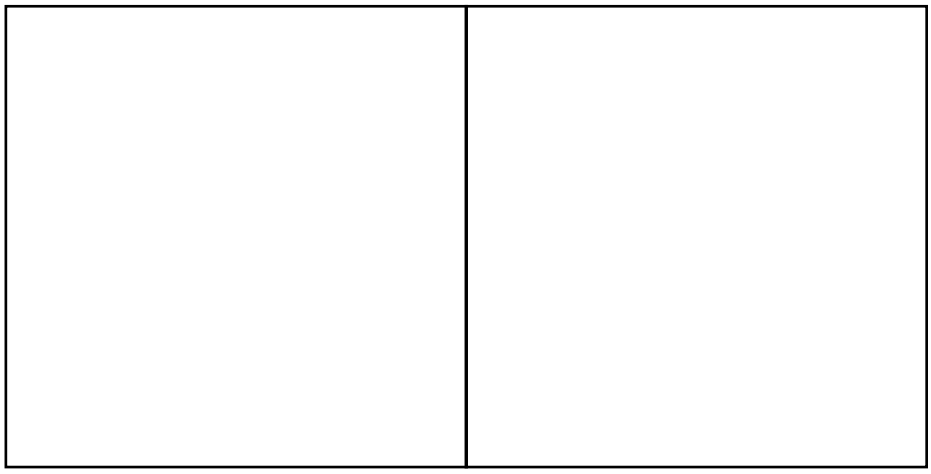
You Do Together: (Student Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-fourth
- Use the square guide to help you draw each problem.

5. $3 \div \frac{1}{4} =$ _____



6. $2 \div \frac{1}{3} =$ _____



Name _____ Date _____

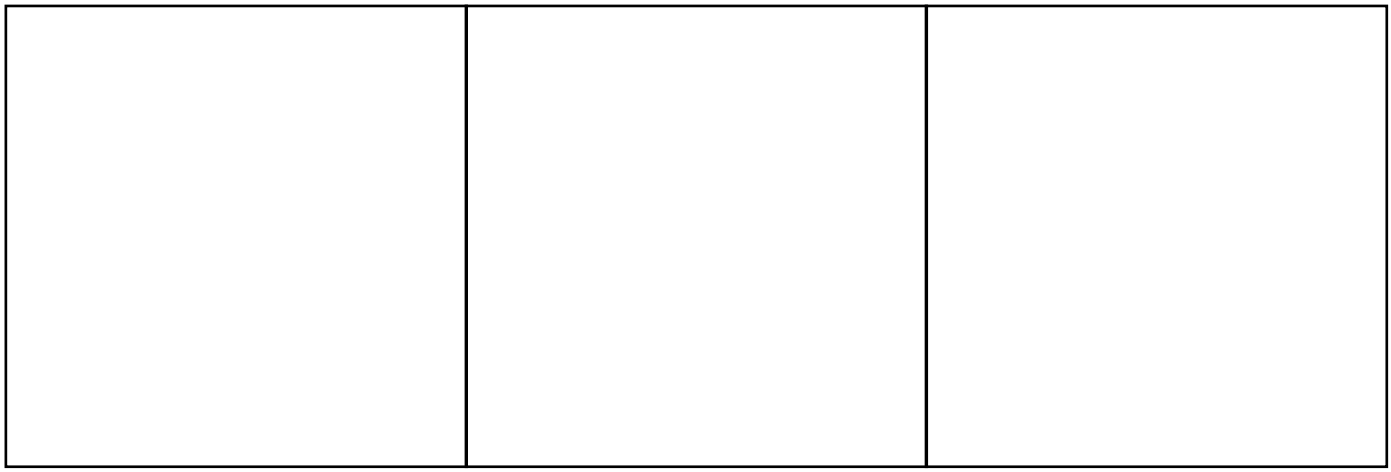
6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

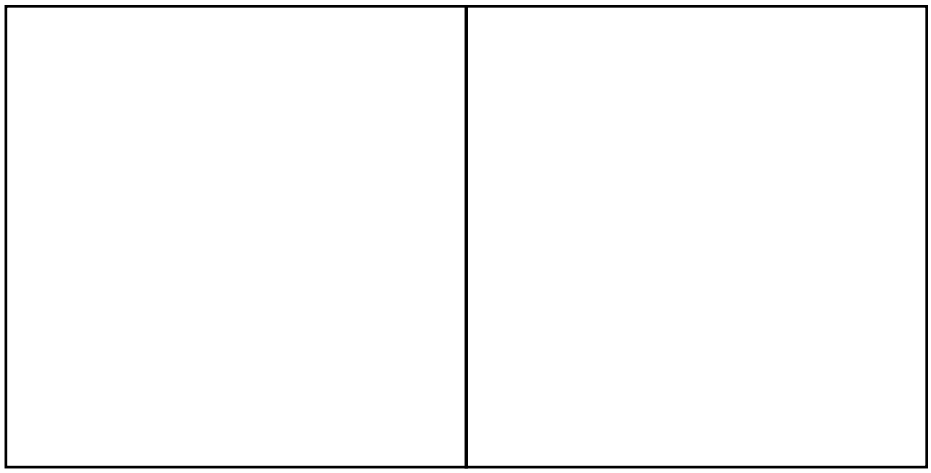
Session 6: Guided Practice (We Do – Continued)

You Do Together: (Continued)

7. $3 \div \frac{1}{6} =$ _____



8. $2 \div \frac{1}{4} =$ _____



Session 6: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form F

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $4 \div \frac{1}{5} = \_\_\_\_\_$	**2.** $2 \div \frac{1}{8} = \_\_\_\_\_$
3. $5 \div \frac{1}{3} = \_\_\_\_\_$	**4.** $8 \div \frac{1}{8} = \_\_\_\_\_$
5. $9 \div \frac{1}{7} = \_\_\_\_\_$	**6.** $3 \div \frac{1}{6} = \_\_\_\_\_$

Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

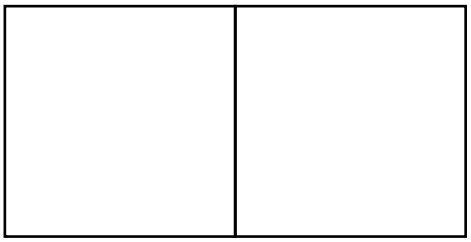
Learning Target: I will divide a whole number by a unit fraction

Session 7: Guided Practice (We Do)

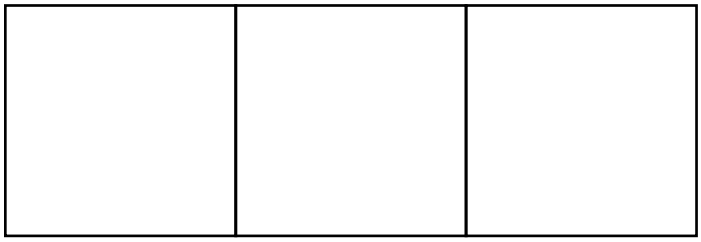
We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-eighth
- Multiply to find the answer to each division problem. Then, sketch the division problem to check your answer.

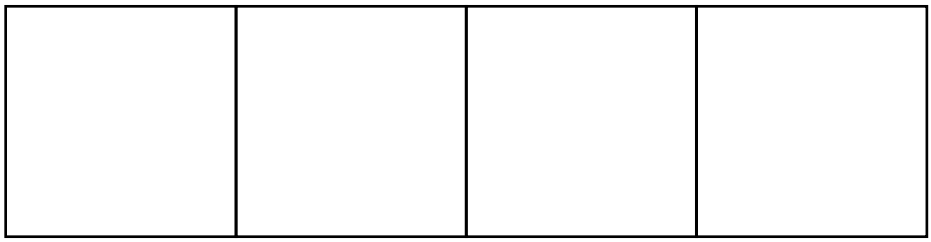
1. $2 \div \frac{1}{8} =$ _____



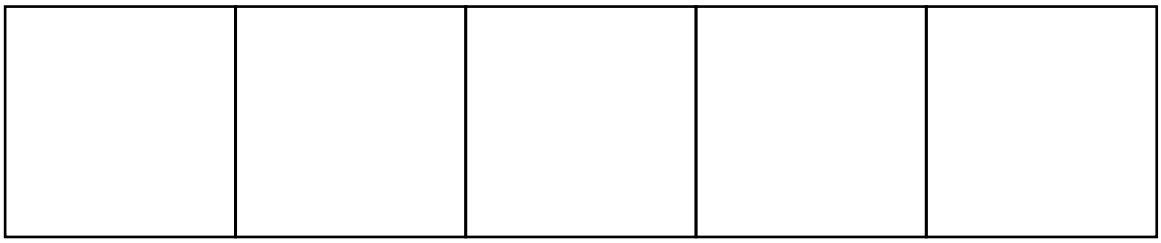
2. $3 \div \frac{1}{6} =$ _____



3. $4 \div \frac{1}{3} =$ _____



4. $5 \div \frac{1}{4} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

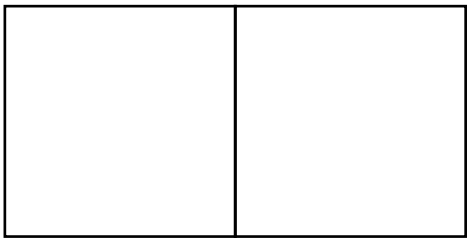
Learning Target: I will divide a whole number by a unit fraction

Session 7: Guided Practice (We Do – Continued)

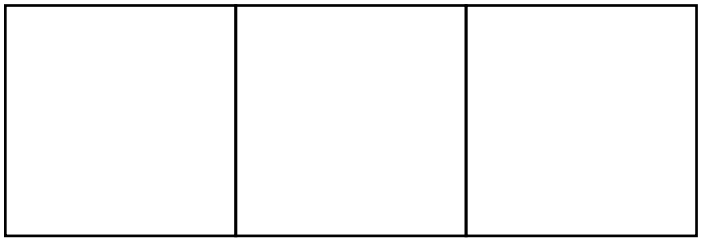
You Do Together: (Student Actions)

- Students take turns leading to restating each division problem. Then, multiply to find the answer to each division problem and sketch the original problem to check your answer.

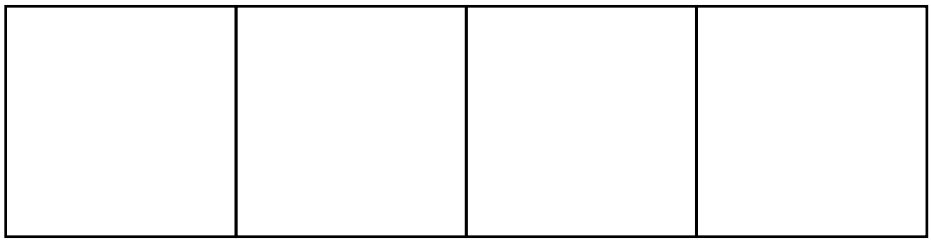
5. $2 \div \frac{1}{6} =$ _____



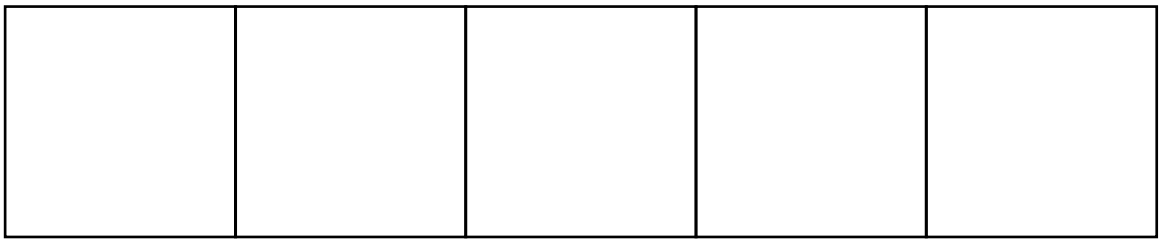
6. $3 \div \frac{1}{4} =$ _____



7. $4 \div \frac{1}{8} =$ _____



8. $5 \div \frac{1}{6} =$ _____



Session 7: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form G

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $3 \div \frac{1}{4} = \_\_\_\_\_$	**2.** $4 \div \frac{1}{6} = \_\_\_\_\_$
3. $5 \div \frac{1}{8} = \_\_\_\_\_$	**4.** $9 \div \frac{1}{3} = \_\_\_\_\_$
5. $8 \div \frac{1}{10} = \_\_\_\_\_$	**6.** $3 \div \frac{1}{6} = \_\_\_\_\_$

Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

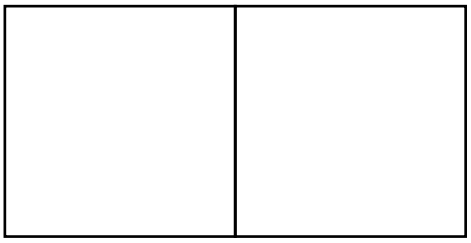
Learning Target: I will divide a whole number by a unit fraction

Session 8: Guided Practice (We Do)

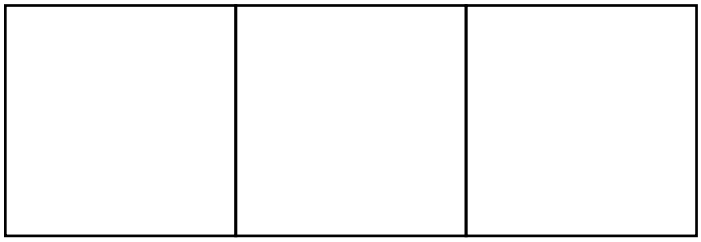
We Do Together: (Teacher Actions)

- Restate each division problem based on your conceptual understanding.
  Example: 3 wholes equally divided into groups of 1-eighth
- Multiply to find the answer to each division problem. Then, sketch the division problem to check your answer.

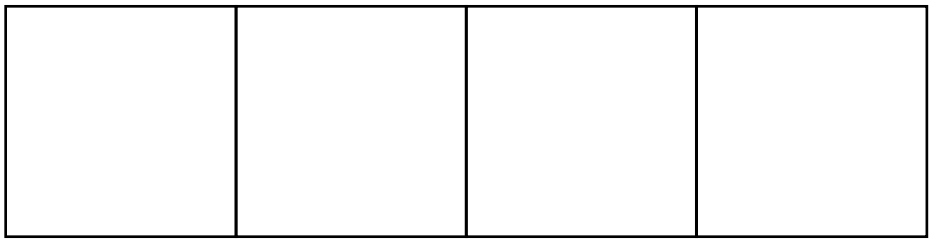
1. $2 \div \frac{1}{5} =$ _____



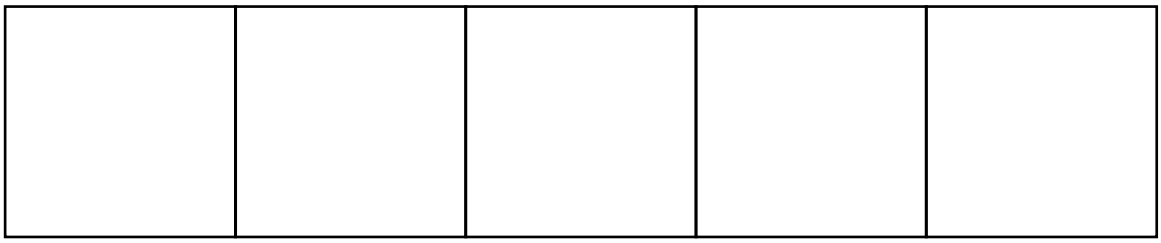
2. $3 \div \frac{1}{8} =$ _____



3. $4 \div \frac{1}{7} =$ _____



4. $5 \div \frac{1}{3} =$ _____



Name _____ Date _____

6th Grade - RS 7 - 5.NF.7b

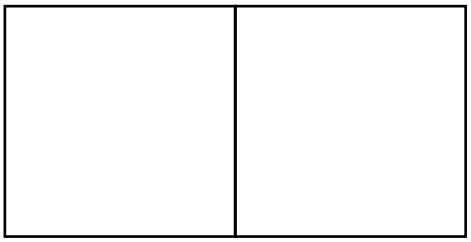
Learning Target: I will divide a whole number by a unit fraction

Session 8: Guided Practice (We Do – Continued)

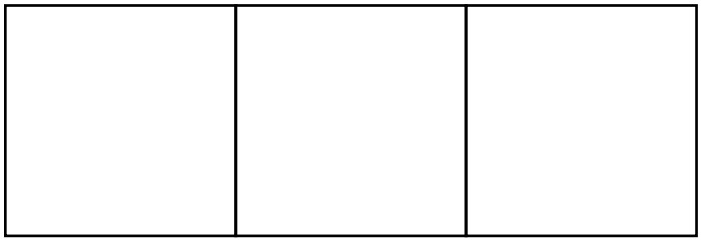
You Do Together: (Student Actions)

- Students take turns leading to restating each division problem. Then, multiply to find the answer to each division problem and sketch the original problem to check your answer.

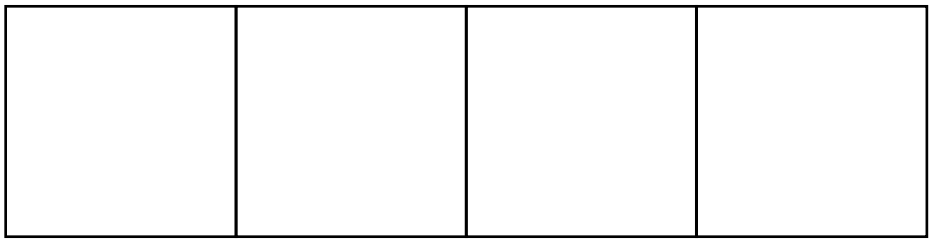
5. $2 \div \frac{1}{8} =$ _____



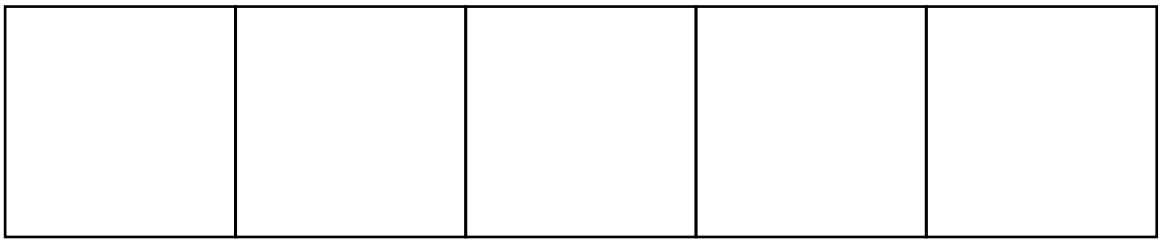
6. $3 \div \frac{1}{6} =$ _____



7. $4 \div \frac{1}{5} =$ _____



8. $5 \div \frac{1}{4} =$ _____



Session 8: Self-Reflection

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Briefly discuss student responses:

- What did I learn today about dividing a whole number by a unit fraction?

- How confident do I feel about dividing a whole number by a unit fraction on my own?
  (Thumbs up, down, or sideways)

Quick Check - Form H

6th Grade - Readiness Standard 7 - 5.NF.7b

Name_____ Date_____

Learning Target: I will divide a whole number by a unit fraction.

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

1. $2 \div \frac{1}{5} = \_\_\_\_\_$	**2.** $3 \div \frac{1}{2} = \_\_\_\_\_$
3. $5 \div \frac{1}{6} = \_\_\_\_\_$	**4.** $7 \div \frac{1}{8} = \_\_\_\_\_$
5. $9 \div \frac{1}{6} = \_\_\_\_\_$	**6.** $8 \div \frac{1}{2} = \_\_\_\_\_$

Independent Practice (You Do)

6th Grade - Readiness Standard 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Readiness for multiplying and dividing fractions

Title of Game: Play "**Division 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
  - Take a card from the row of face down **Problem** cards and turn it face up
  - Write the problem on the recording sheet

- 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.

Names _____ Date _____

6th Grade - RS 7 - 5.NF.7b

Learning Target: I will divide a whole number by a unit fraction

Independent Practice: Division Match-up!

(Recording Sheet)

Problem Cards (Set A_1 and A_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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	$2 \div \frac{1}{2}$ Set A_1	$3 \div \frac{1}{2}$ Set A_1	$4 \div \frac{1}{2}$ Set A_1	$5 \div \frac{1}{2}$ Set A_1
	$6 \div \frac{1}{3}$ Set A_1	$3 \div \frac{1}{3}$ Set A_1	$4 \div \frac{1}{3}$ Set A_1	$5 \div \frac{1}{3}$ Set A_1
	$6 \div \frac{1}{4}$ Set A_1	$7 \div \frac{1}{4}$ Set A_1		
Set A_2	$2 \div \frac{1}{2}$ Set A_2	$3 \div \frac{1}{2}$ Set A_2	$4 \div \frac{1}{2}$ Set A_2	$5 \div \frac{1}{2}$ Set A_2
	$6 \div \frac{1}{3}$ Set A_2	$3 \div \frac{1}{3}$ Set A_2	$4 \div \frac{1}{3}$ Set A_2	$5 \div \frac{1}{3}$ Set A_2
	$6 \div \frac{1}{4}$ Set A_2	$7 \div \frac{1}{4}$ Set A_2		

Answer Cards (Set A_1 and A_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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	4 Set A_1	6 Set A_1	8 Set A_1	10 Set A_1
	18 Set A_1	9 Set A_1	12 Set A_1	15 Set A_1
	24 Set A_1	28 Set A_1		
Set A_2	4 Set A_2	6 Set A_2	8 Set A_2	10 Set A_2
	18 Set A_2	9 Set A_2	12 Set A_2	15 Set A_2
	24 Set A_2	28 Set A_2		

Problem Cards (Set B_1 and B_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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 B_1	$2 \div \frac{1}{6}$ Set B_1	$3 \div \frac{1}{6}$ Set B_1	$4 \div \frac{1}{6}$ Set B_1	$2 \div \frac{1}{7}$ Set B_1
	$3 \div \frac{1}{7}$ Set B_1	$4 \div \frac{1}{7}$ Set B_1	$2 \div \frac{1}{8}$ Set B_1	$5 \div \frac{1}{8}$ Set B_1
	$4 \div \frac{1}{8}$ Set B_1	$5 \div \frac{1}{9}$ Set B_1		
Set B_2	$2 \div \frac{1}{6}$ Set B_2	$3 \div \frac{1}{6}$ Set B_2	$4 \div \frac{1}{6}$ Set B_2	$2 \div \frac{1}{7}$ Set B_2
	$3 \div \frac{1}{7}$ Set B_2	$4 \div \frac{1}{7}$ Set B_2	$2 \div \frac{1}{8}$ Set B_2	$5 \div \frac{1}{8}$ Set B_2
	$4 \div \frac{1}{8}$ Set B_2	$5 \div \frac{1}{9}$ Set B_2		

Answer Cards (Set B_1 and B_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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 B_1	12 Set B_1	18 Set B_1	24 Set B_1	14 Set B_1
	21 Set B_1	28 Set B_1	16 Set B_1	40 Set B_1
	32 Set B_1	45 Set B_1		
Set B_2	12 Set B_2	18 Set B_2	24 Set B_2	14 Set B_2
	21 Set B_2	28 Set B_2	16 Set B_2	40 Set B_2
	32 Set B_2	45 Set B_2		

Problem Cards (Set C_1 and C_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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	$6 \div \frac{1}{3}$ Set C_1	$7 \div \frac{1}{3}$ Set C_1	$8 \div \frac{1}{4}$ Set C_1	$9 \div \frac{1}{3}$ Set C_1
	$6 \div \frac{1}{6}$ Set C_1	$7 \div \frac{1}{5}$ Set C_1	$8 \div \frac{1}{6}$ Set C_1	$9 \div \frac{1}{6}$ Set C_1
	$7 \div \frac{1}{7}$ Set C_1	$8 \div \frac{1}{8}$ Set C_1		
Set C_2	$6 \div \frac{1}{3}$ Set C_2	$7 \div \frac{1}{3}$ Set C_2	$8 \div \frac{1}{4}$ Set C_2	$9 \div \frac{1}{3}$ Set C_2
	$6 \div \frac{1}{6}$ Set C_2	$7 \div \frac{1}{5}$ Set C_2	$8 \div \frac{1}{6}$ Set C_2	$9 \div \frac{1}{6}$ Set C_2
	$7 \div \frac{1}{7}$ Set C_2	$8 \div \frac{1}{8}$ Set C_2		

Answer Cards (Set C_1 and C_2)

6th Grade - Readiness Standard 7 - 5.NF.7b

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	18 Set C_1	21 Set C_1	32 Set C_1	27 Set C_1
	36 Set C_1	35 Set C_1	48 Set C_1	54 Set C_1
	49 Set C_1	64 Set C_1		
Set C_2	18 Set C_2	21 Set C_2	32 Set C_2	27 Set C_2
	36 Set C_2	35 Set C_2	48 Set C_2	54 Set C_2
	49 Set C_2	64 Set C_2		

Questions for Solving Word Problems

Q_1 ***What is the problem about?***
Q_2 ***What do I need to find?***
Q_3 ***What do I know?***
Q_4 ***What can I try?***
Q_5 ***Does my answer make sense?***

Steps for Solving Word Problems

Q_1. *What is the problem about?*
Q_2. *What do I need to find?*
Q_3. *What do I know?*
Q_4. *What can I try?*
Q_5. *Does my answer make sense?*