Grade 6 Unit 4: Division of Fractions
Lessons 1–9: Making Sense of Division and Meaning of Fraction Division

Explore, Play, and Discuss

- I can explain how multiplication and division are related.
- When given a division equation, I can write a multiplication equation that represents the same situation.

Activity Suggestions:

- ➢ Lesson 2: This lesson focuses on the meaning of division and its relationship with multiplication.
- ➢ Lesson 3, Activity 3: In this activity, students continue to investigate division problems in terms of equal-size groups, and represent them using both diagrams and equations.

Assessment Suggestions:

- ➢ Lesson 2 cool-down
- ➢ Check Your Readiness: Administer all items at least a couple of days before beginning instruction to gather data. Use the guidance provided with each problem to adjust instruction so that students can access the math in the unit.

Deep Dive

- I can explain two ways of interpreting a division expression.

Activity Suggestions:

- ➢ Lesson 6: Focuses on interpreting division as "how many groups" with division problems involving fractions.
- ➢ Lesson 7, Activity 3: Students make sense of quotients less than and greater than 1 in the same context.

Assessment Suggestions:

- ➢ Lesson 6 cool-down
- ➢ Lesson 7 cool-down

Synthesize and Apply

- I can create a diagram or write an equation that represents division and multiplication questions.

Activity Suggestions:

- ➢ Lesson 8 Lesson: Focuses on situations where the number of groups is unknown, but the size of the group (how much is in each group) is not.
- ➢ Lesson 9, Activity 3: Write equations and draw diagrams regarding the amount in one group in a division situation.

Assessment Suggestions:

- ➢ Lesson 8 cool-down
- ➢ Lesson 9 cool-down

Ongoing Practice

- Assign one or more of the distributed practice problem sets from lessons 1–9 to be completed over the time period that the section is being worked on.
- These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit.
- Specify which problems students should submit, or let them choose.
- Note: Several existing platforms already have IM's practice problems loaded so that students can complete and submit them online. Some can be autoscored.

Anytime Resources

- Any of the warm-up activities from lessons 1-9
- Lesson 1

Lessons 10–17: Algorithm for Fraction Division and Fractions in Length, Area and Volume

Explore, Play, and Discuss

- I can divide a number by a non-unit fraction by reasoning with the numerator and denominator, which are whole numbers.

Activity Suggestions:

- ➢ Lesson 10, Activity 1: A reminder of the connection between tape diagrams and sentences describing multiplication and division.
- ➢ Lesson 11, Activity 1: Students multiply fractions.
- ➢ Lesson 10, Activity 2: students use tape diagrams and a meaning of division to divide a number by unit fractions. Students arrive at the conclusion that a ÷ (1/b) is equivalent to a * b.

Assessment Suggestions:

- ➢ Write a journal entry describing a possible connection between dividing by (1/b) and multiplication by a number.

Dive Deep

- I can describe and apply a rule to divide numbers by any fraction.

Activity Suggestions:

- ➢ Lesson 10, Activity 3: Dividing by non-unit fractions.
- ➢ Lesson 11, Activity 2 and 3: finalizing algorithm for fraction division.

Assessment Suggestions:

- ➢ Lesson 10 cool-down
- ➢ Lesson 11 cool-down
- ➢ Revisions to previous assessment prompts.

Synthesize and Apply

- I can use division and multiplication to solve problems involving areas of triangles with fractional bases and heights.
- I know how to find the volume of a rectangular prism even when the edge lengths are not whole numbers.

Activity Suggestions:

- ➢ Lesson 14: Using division of fractions in geometric contexts.
- ➢ Lesson 15, Activity 2: Further application of fraction division using volume.

Assessment Suggestions:

- ➢ Lesson 14 cool-down
- ➢ Lesson 15 cool-down

Ongoing Practice	
	• Assign one or more of the distributed practice problem sets from lessons 10-17 to be completed over the time period that the section is being worked on. • These could also be lagging, so that students are working on practice problems from the previous section or unit during this section or unit. • Specify which problems students should submit, or let them choose. • Note: Several existing platforms already have IM's practice problems loaded so that students can complete and submit them online. Some can be autoscored.

Anytime Resources	
	• Any of the warm up activities from 10-17 • The Family Support Materials from this unit provide high level guidance on the content of this unit and sample problems with answers.