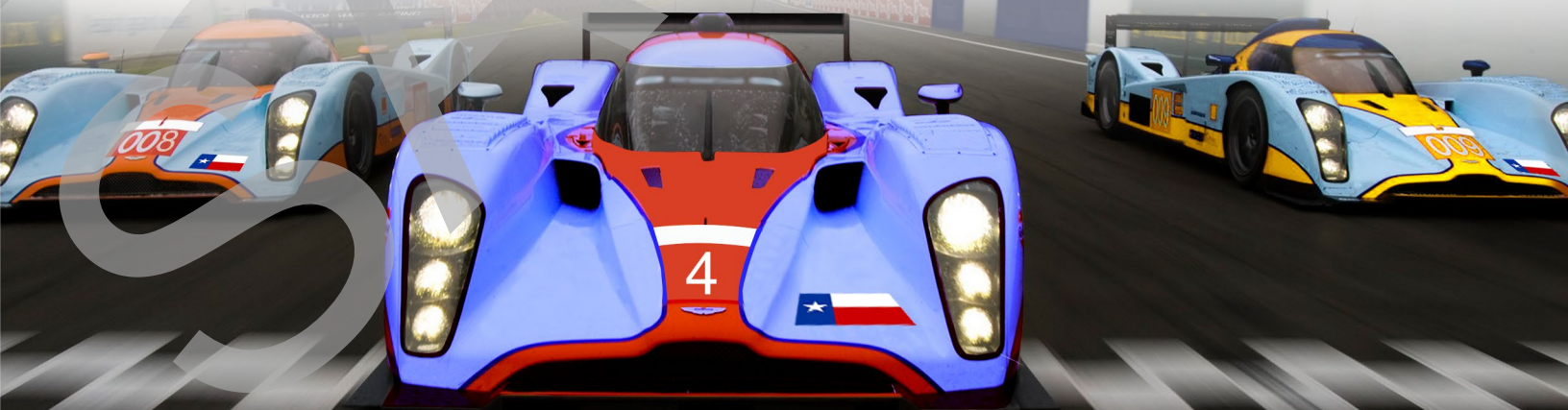


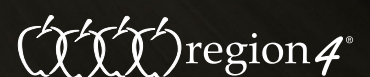
STAAR® Edition



Closing the Distance Grade 6 Mathematics



Teacher Edition



Closing the Distance:

Grade 6

Teacher Edition

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Region 4 Education Service Center supports student achievement by providing educational products and services that focus on excellence, service, and children.

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Table of Contents

Introduction	iii–xi
What is <i>Closing the Distance</i> ?	iii
What is in a lesson found in <i>Closing the Distance</i> ?	iv
Ordering Rational Numbers	1–16
Lesson Notes	2–4
Small-Group Intervention Suggestions	5–8
Answer Keys	9–16
Activity Masters and Student Pages	Digital Access
Generating Equivalent Expressions	17–31
Lesson Notes	18–22
Small-Group Intervention Suggestions	23–24
Answer Keys	25–31
Activity Masters and Student Pages	Digital Access
Applying Operations to Integers	33–46
Lesson Notes	34–36
Small-Group Intervention Suggestions	37–39
Answer Keys	40–46
Activity Masters and Student Pages	Digital Access
Multiplying and Dividing Positive Rational Numbers	47–59
Lesson Notes	48–50
Small-Group Intervention Suggestions	51–52
Answer Keys	53–59
Activity Masters and Student Pages	Digital Access
Solving Problems Involving Percents	61–80
Lesson Notes	62–65
Small-Group Intervention Suggestions	66–69
Answer Keys	70–80
Activity Masters and Student Pages	Digital Access
Reasoning Qualitatively and Quantitatively in Proportional Situations	81–97
Lesson Notes	82–85
Small-Group Intervention Suggestions	86–88
Answer Keys	89–97
Activity Masters and Student Pages	Digital Access

Representing Linear Relationships	99–119
Lesson Notes	100–103
Small-Group Intervention Suggestions	104–106
Answer Keys	107–119
Activity Masters and Student Pages	Digital Access
Modeling and Solving One-Variable Equations and Inequalities	121–134
Lesson Notes	122–125
Small-Group Intervention Suggestions	126–127
Answer Keys	128–134
Activity Masters and Student Pages	Digital Access
Determining Area and Volume.....	135–148
Lesson Notes	136–139
Small-Group Intervention Suggestions	140–141
Answer Keys	142–148
Activity Masters and Student Pages	Digital Access
Summarizing Data.....	149–165
Lesson Notes	150–153
Small-Group Intervention Suggestions	154–156
Answer Keys	157–165
Activity Masters and Student Pages	Digital Access
Interpreting Numeric Data	167–184
Lesson Notes	168–170
Small-Group Intervention Suggestions	171–173
Answer Keys	174–184
Activity Masters and Student Pages	Digital Access

1

A resource that serves as an intervention for students who are close to success on the State of Texas Assessments of Academic Readiness (STAAR®)

2

A resource that integrates related TEKS to provide a review of mathematics concepts and skills, paired with opportunities for rigorous mathematical discourse

3

A resource of classroom-ready 5E activities that keeps students engaged in a positive, productive manner through strategies, including modeling, card sorts, matching, cooperative learning, and analysis of student work

4

A resource that provides an opportunity for students to track their progress with an analysis of strengths and areas to improve within each lesson

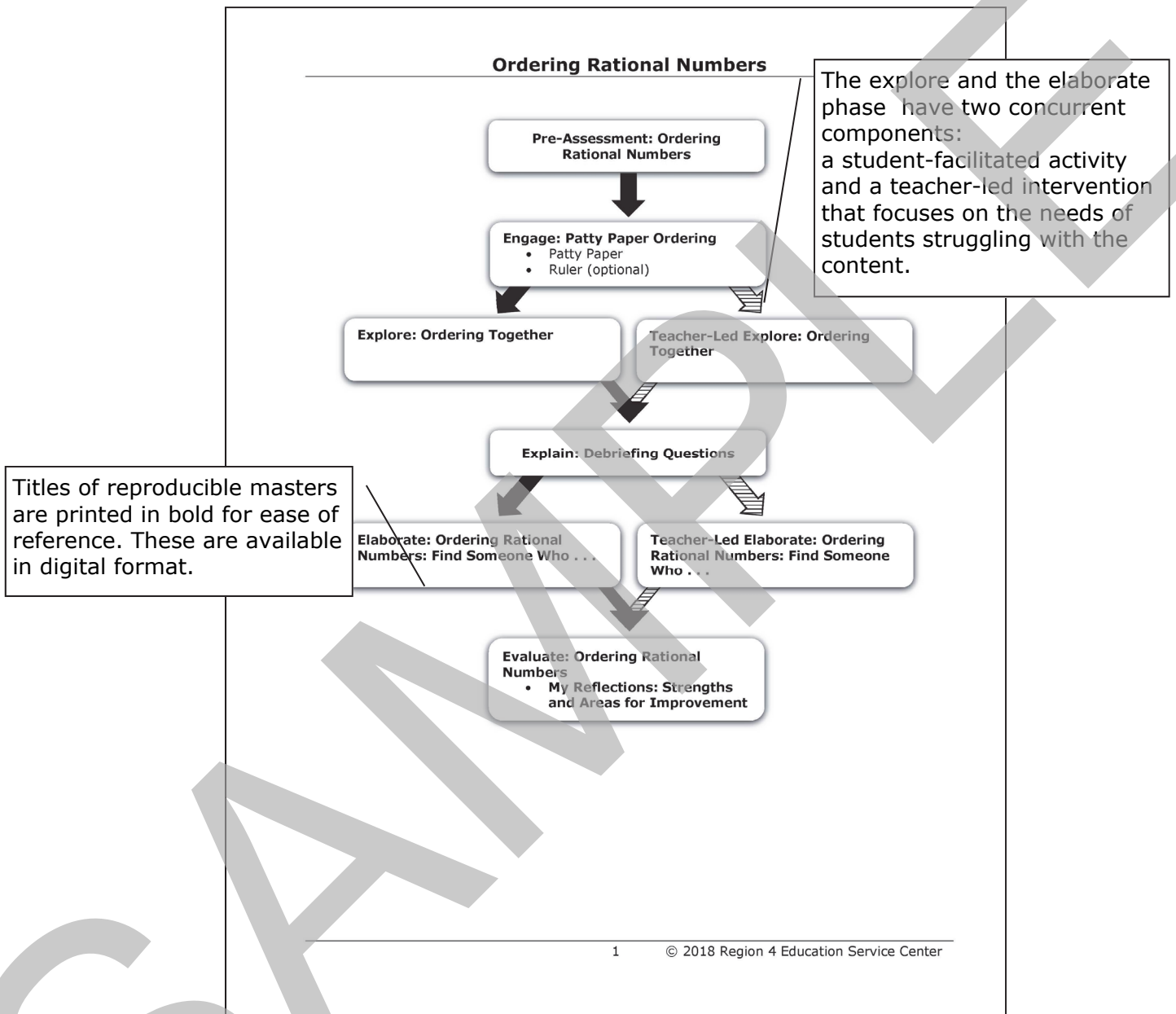
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A resource that includes a pre-assessment to provide teachers and students quick and timely information on student readiness for the activities in the lesson and identifies students that may benefit from a small-group intervention setting

6

A resource that includes teacher-led interventions for students who may struggle with specific content

What is in a lesson found in *Closing the Distance*?



What is in a lesson found in *Closing the Distance*?

Each lesson supports multiple student expectations with a focus on the STAAR® readiness standards. Student expectations are listed at the beginning of each lesson.

Materials for each phase are summarized on one page for ease in preparation.

Ordering Rational Numbers

Phase	Activity Title	TEKS	Additional Materials	Instructional Grouping
Pre-Assessment	Pre-Assessment: Ordering Rational Numbers	6(2)(C) 6(2)(D) 6(4)(G)		Individual
Engage	Patty Paper Ordering	6(2)(C) 6(2)(D)	- Patty Paper - Ruler (optional)	Individual
Explore Explain	Ordering Together	6(2)(C) 6(2)(D) 6(4)(G)		Groups of 2-3 Whole Group
Elaborate	Ordering Rational Numbers: Find Someone Who . . .	6(2)(C) 6(2)(D) 6(4)(G)		Groups of 2
Evaluate	Evaluate: Ordering Rational Numbers	6(2)(D) 6(4)(G)	My Reflections: Strengths and Areas for Improvement	Individual

Grouping strategies for each phase are summarized to assist in the arrangement of the classroom.

Bold items are reproducible masters.
Italicized items require advanced preparation.

Pre-Assessment: Ordering Rational Numbers

The purpose of this activity is to formatively assess students' understanding of how to compare fractions and decimals and order positive and negative rational numbers using a number line.

The identified activities are recommended for small-group, teacher-led interventions for students who may struggle with the specific content in **Pre-Assessment: Ordering Rational Numbers**.

Content	Teacher-Led Intervention
Comparing and ordering positive rational numbers	Patty Paper Ordering
Comparing and ordering negative rational numbers	Patty Paper Ordering
Comparing and ordering rational numbers	Patty Paper Ordering Ordering Together
Comparing and ordering rational numbers in mathematical and real-world contexts	Ordering Rational Numbers: Find Someone Who . . .

A focused pre-assessment is provided for each lesson. Tier I intervention activities are identified for use with students who may struggle with the identified content.

What is in a lesson found in *Closing the Distance*?

Key ideas and concepts to listen for as students complete each phase are listed.

Complete directions are included on each student page. Additional directions are provided for teacher-facilitated aspects of an activity.

Ordering Rational Numbers



Engage: Patty Paper Ordering

The purpose of this activity is to assess background knowledge related to ordering sets of rational numbers using a number line.

Additional Directions
None

Additional Materials
• Patty Paper
• Ruler (optional)

Additional materials may be needed to complement the student pages.

Listen For . . .

- Use of estimation to locate values on a number line.
- Understanding of the relationship between the location of a number and the location of its opposite on a number line.
- Use of place value to determine location on a number line.
- Understanding that the numbers on a number line increase in value from left to right, regardless of sign.
- Understanding that the numbers on a number line decrease in value from right to left, regardless of sign.
- Connections between ordering a set of positive numbers and a set of negative numbers.

Vocabulary

- Benchmark Values
- Greater than
- Less than
- Like denominators
- Negative
- Opposite
- Place value
- Positive
- Unlike denominators



Explore: Ordering Together

The purpose of this activity is to reinforce students' understanding of ordering sets of rational numbers.

Additional Directions
None

Additional Materials
None

Listen For . . .

- Use of estimation to determine the approximate location of a rational number on a number line.
- Use of place value to determine location on a number line.
- Understanding that the numbers on a number line increase in value from left to right, regardless of sign.
- Understanding that the numbers on a number line decrease in value from right to left, regardless of sign.
- Understanding that any positive number has a value greater than any negative number.
- Understanding that any negative number has a value less than any positive number.
- Understanding of how to compare rational numbers in mixed forms.

Vocabulary

- Benchmark Values
- Greater than
- Less than
- Like denominators
- Negative
- Opposite
- Place value
- Positive
- Unlike denominators

Key vocabulary terms are identified for each phase.

What is in a lesson found in *Closing the Distance*?

Ordering Rational Numbers

 **Explain: Debriefing Questions**
The purpose of this activity is to highlight key understandings and skills applied in the Explore phase of this lesson.

- How can you determine which benchmark values may be beneficial when using a number line to order a set of rational numbers?
- How did you estimate the placement of values on a number line?
- When you compare two positive values, how can you use a number line to determine the larger value?
- When you compare two negative values, how can you use a number line to determine the larger value?
- When you compare a positive value to a negative value, how can you determine the larger value?

 **Elaborate: Ordering Rational Numbers: Find Someone Who . . .**
The purpose of this activity is to reinforce students' understanding of ordering rational numbers from mathematical and real-world contexts.

Additional Directions
None

Listen For . . .

- *Understanding that numbers may be ordered from least to greatest or from greatest to least.*
- *Use of appropriate benchmark fractions or decimals to determine placement of given numbers on a number line.*
- *Use of equivalent fractions to compare fractions with unlike denominators and to determine placement of given numbers on a number line.*
- *Use of place value to compare decimals and to determine appropriate placement of given numbers on a number line.*
- *Connections between ordering a set of positive numbers and a set of negative numbers.*

Additional Materials
None

Vocabulary

- *Benchmark values*
- *Greater than*
- *Less than*
- *Like denominators*
- *Negative*
- *Place value*
- *Positive*
- *Unlike denominators*

 **Evaluate: Ordering Rational Numbers**
The purpose of this activity is to assess students' understanding of how to convert between fractions and decimals and order a set of rational numbers.

Question	TEKS	Correct Answer
1	6(4)(G)	0.4
2	6(2)(D)	D
3	6(2)(D)	B
4	6(2)(D)	C

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The explain phase includes debriefing questions to guide class discussion for key understandings and skills found in the activities.

Each selected-response item is labeled with the content student expectation.

What is in a lesson found in *Closing the Distance*?

Ordering Rational Numbers

Small-group intervention suggestions are provided for the Explore and the Elaborate phases.

Small-Group Intervention Suggestions

Teacher-Led Explore: Ordering Together

Vocabulary
Benchmark values, greater than, less than, like denominators, negative, opposite, place value, positive, unlike denominators

Additional Materials
None

Small-Group Directions

Listen For . . .

- Use of estimation to determine the approximate location of a rational number on a number line.
- Use of place value to determine location on a number line.
- Understanding that the numbers on a number line increase in value from left to right, regardless of sign.
- Understanding that the numbers on a number line decrease in value from right to left, regardless of sign.
- Understanding that any positive number has a value greater than negative numbers.
- Understanding that any negative number has a value less than positive numbers.
- Understanding that opposite numbers are the same distance from zero on a number line.

Step 1

A) Prompt students to review the set of numbers for the first task.

- What do you notice about the signs of all of the numbers in this set?
- Between which two benchmark values do all of the numbers in this set fall?
- Because all of the numbers in this set are positive, proper fractions, what minimum benchmark value should we label on our number line? What maximum benchmark value should we label on our number line?

B) Prompt students to partition the number line so that zero and one are marked and labeled.

- What other benchmark values might be helpful on our number line? Why?

C) Prompt students to partition the number line into fourths and label one-fourth, one-half, and three-fourths.

D) Use a think-aloud process and the following questions to guide students in completing the first task. Begin with 0.6.

- Based on the benchmark values we have labeled on our number line, where can we place 0.6?
- We know the value of 0.6 is between one-half and three-fourths. Should we plot 0.6 on the number line closer to one-half, closer to three-fourths, or exactly in the middle? Why?

E) Prompt students to plot and label 0.6 on the number line.

Step 2

A) Continue to use a think-aloud process and the following questions to guide students in plotting nine-tenths on the number line.

- How can we use place value to determine the decimal equivalent of nine-tenths?
- Between which two benchmark values does nine-tenths fall?
- Should we plot nine-tenths closer to three-fourths, closer to one, or exactly in the middle? Why?

Each intervention provides instructions on how to make the mathematics more explicit for students struggling with the content within the lesson.

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What is in a lesson found in *Closing the Distance*?

Each lesson provides an opportunity for student reflection as the student self-assesses strengths for each phase of the lesson. Following this self-assessment, students are prompted to note what they are most proud of and to set a goal to improve understanding.

Name: _____

Date: _____

My Reflections: Strengths and Areas for Improvement

Place a plus sign for each statement you feel is a strength after completing each lesson activity.

Lesson Activity	I can locate rational numbers on a number line.	I can generate equivalent forms of rational numbers.	I can order a set of fractions and a set of decimals.	I can order a set of positive rational numbers and a set of negative rational numbers.	I can order a set of rational numbers.
Patty Paper Ordering					
Ordering Together					
Ordering Rational Numbers: Find Someone Who . . .					
Evaluate: Ordering Rational Numbers					

I am most proud . . .

To improve my understanding, I . . .
