



5th Grade
MULTIPLICATION AND
DIVISION OF WHOLE
NUMBERS BY A
FRACTION

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Whole Class Lessons and Guided Math Groups
Active Engagement and Games
Intervention and Enrichment
EXIT TICKETS



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AND

be the math teacher that gets results

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I SEE YOU~

- struggling each week to write lesson plans that meet the rigor of the TEKS.
- searching endlessly for resources that will help kids learn math while being challenged and engaged.
- staying late everyday after school working on plans and creating everything from scratch.

You are exhausted from working with students all day, and still have to prep, write and create.

I SEE YOU~

SACRIFICING your time with your family and friends

to ensure success for ALL of OUR Children.



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Name _____

MULTIPLICATION AND DIVISION OF WHOLE NUMBERS BY A FRACTION

LT	Statement	1	2	3	4	Evidence
1	I can estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division					
2	I can represent multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models.					
3	I can solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models.					
4	I can represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $\frac{1}{3} \div 7$ and $7 \div \frac{1}{3}$ using objects and pictorial models, including area models.					
5	I can divide whole numbers by unit fractions and unit fractions by whole numbers.					
6	I can simplify numerical expressions that do not involve exponents, including up to two levels of grouping.					

1	2	3	4
I have no idea how to do this.	I can do this with some help. ©iPohly INC	I can do this by myself	I can teach someone to do this. ¹⁰

Learning Target	What do we want students to learn?	How will we know if they learned it?	What will we do if they don't?	What will we do if they already know it?
1 5.3A	Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division.	Whole Numbers Decimals Fractions <input type="checkbox"/> Proper Fraction <input type="checkbox"/> Improper Fraction <input type="checkbox"/> Mixed Number <input type="checkbox"/> Unit Fraction <input type="checkbox"/> Products of fractions where factors are limited to a fraction and a whole number <input type="checkbox"/> Quotients of fractions where dividend and divisors are limited to whole numbers by unit fractions and unit fractions by whole numbers	<input type="checkbox"/> Understand how to use rounding or compatible numbers to estimate a solution <input type="checkbox"/> Understand how to determine the reasonableness of an estimation <input type="checkbox"/> Determine a reasonable estimate of the solution to a two-step problem involving all operations	<input type="checkbox"/> Estimate solutions with whole numbers, fractions, and decimals mixed.
2 5.3I	Represent multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models.	Concrete objects and pictorial models <input type="checkbox"/> Pattern blocks and other shapes <input type="checkbox"/> Skip counting <input type="checkbox"/> Fraction bars <input type="checkbox"/> Number lines <input type="checkbox"/> Area models <input type="checkbox"/> Strip diagrams	<input type="checkbox"/> Understand the phrase " $\frac{3}{5}$ of 5" as a verbal description indicating multiplication <input type="checkbox"/> Understand how to interpret the relationship between a fraction and a whole number represented in a pictorial model or area model in the form of a table	<input type="checkbox"/> Multiply and divide positive rational numbers fluently.
3 5.3I	Solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models.	Equation(s) to reflect solution process	<input type="checkbox"/> Represent multiplication of a fraction by a whole number using a pictorial model or an area model	

Learning Target	What do we want students to learn?	How will we know if they learned it?	What will we do if they don't?	What will we do if they already know it?
4 5.3J	Represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as $1/3 \div 7$ and $7 \div 1/3$ using objects and pictorial models, including area models.	<p>Referring to the same whole</p> <ul style="list-style-type: none"> <input type="checkbox"/> Fractions are relationships, and the size or the amount of the whole matters. <p>Division structures</p> <p>Partitive division</p> <ul style="list-style-type: none"> <input type="checkbox"/> Total amount known <input type="checkbox"/> Number of groups known <input type="checkbox"/> Size or measure of each group unknown <p>Quotative division</p> <ul style="list-style-type: none"> <input type="checkbox"/> Total amount known <input type="checkbox"/> Size or measure of each group known <input type="checkbox"/> Number of groups unknown <p>Recognition of division in mathematical and real-world problem situations</p> <ul style="list-style-type: none"> <input type="checkbox"/> Concrete objects and pictorial models <input type="checkbox"/> Strip diagrams <input type="checkbox"/> Clocks <input type="checkbox"/> Number lines <input type="checkbox"/> Adapted area models 	<ul style="list-style-type: none"> <input type="checkbox"/> Understand how to interpret the relationship between a unit fraction and a whole number represented in a model <input type="checkbox"/> Represent division of a whole number by a unit fraction using a number line 	<ul style="list-style-type: none"> <input type="checkbox"/> Multiply and divide positive rational numbers fluently.

Learning Target	What do we want students to learn?	How will we know if they learned it?	What will we do if they don't?	What will we do if they already know it?
5 5.3L	Divide whole numbers by unit fractions and unit fractions by whole numbers.	Recognition of division in mathematical and real-world problem situations Division structures <input type="checkbox"/> Partitive division <input type="checkbox"/> Total amount known <input type="checkbox"/> Number of groups known <input type="checkbox"/> Size or measure of each group unknown Quotative division <input type="checkbox"/> Total amount known <input type="checkbox"/> Size or measure of each group known <input type="checkbox"/> Number of groups unknown Division strategies <input type="checkbox"/> Partitive <input type="checkbox"/> Ratio tables	<input type="checkbox"/> Recognize division of a whole number by a unit fraction presented in a real-world problem situation <input type="checkbox"/> Understand how to divide a whole number by a unit fraction or a unit fraction by a whole number <input type="checkbox"/> Solve a problem involving division of a whole number by a unit fraction or a unit fraction by a whole number	<input type="checkbox"/> Multiply and divide positive rational numbers fluently.
6 5.4F	Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.	<input type="checkbox"/> Products of fractions where factors are limited to a fraction and a whole number <input type="checkbox"/> Quotients of fractions where dividend and divisors are limited to whole numbers by unit fractions and unit fractions by whole numbers	<input type="checkbox"/> Understand the order of operations <input type="checkbox"/> Understand that parentheses are grouping symbols that indicate the part of the expression that should be simplified first <input type="checkbox"/> Understand that parentheses without an operation symbol indicate multiplication; $a(b)$ means a multiplied by b <input type="checkbox"/> Represent a problem situation involving multiplication and subtraction using an expression	<input type="checkbox"/> Simplify numerical expressions that may include a division bar instead of the division symbol.

Day 1 5.3A	Day 2 5.3I	Day 3 5.3I	Day 4 5.3I	Day 5 5.3I
Mini Lesson LT 2, 3 Fraction Strips Number Line	Mini Lesson LT 2, 3 Fraction Circles Number Line	Mini Lesson LT 2, 3 Area Model Number Line	Game LT 2, 3 Multiplication Models	Independent Practice LT 2, 3
Guided Math	Guided Math	Guided Math	Guided Math	Guided Math
	LT 2, 3	LT 2, 3	LT 2, 3	LT 2, 3
Day 6 5.4F	Day 7 5.3J	Day 8 5.3J	Day 9 5.3I, 5.3J	Day 10 5.3L
Game LT 6 Order of Operations	Mini Lesson LT 4 Clocks Strip Diagram Number Line	Mini Lesson LT 4 Adapted Area Model Number Line	Game LT 5 Ratio Table Number Line	Mini Lesson LT 5 Ratio Table Number Line
Guided Math	Guided Math	Guided Math	Guided Math	Guided Math
LT 2, 3	LT 6	LT 4	LT 4	LT 4, 5

Day 11 5.3A	Day 12 5.4F
Mini Lesson LT 1 Estimation	Game LT 6 Order of Operations
Guided Math	Guided Math
LT 1	LT 6

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