

TEKS Cluster: All Operations with Rational Numbers

TEKS Subcluster: Multiplication and Division with Positive Rational Numbers

Student Expectations: 6.2(E), 6.3(A), 6.3(B), 6.3(E)

Activities Summary: Students extend their understanding of multiplying and dividing positive rational numbers and learn to solve problems that include both fractions and decimals. Activities may be organized and delivered in three topics: **Multiplication and Division of Fractions, Multiplication and Division of Decimals, and Multiplication and Division of Fractions and Decimals.**

Activity Title Student Expectations	Activity Topic	Type			Delivery		
		new learning	intervention	practice	teacher-facilitated	small groups	stations
Multiplication and Division of Fractions							
Fractions and Division 6.2(E)	Equivalent Numeric Expressions Students rewrite expressions containing fractions as a numeric expression using division. They rewrite numeric expressions containing division using fractions.	✓	✓		✓		
Greater or Less? 6.3(B)	Size of Products In this whole class exploration, students tell whether multiplying by a number will yield a product that is the same, less than, or greater than the original number.	✓	✓		✓		
Modeling Fraction Multiplication 6.3(E)	Multiply Fractions Using Models Students multiply fractions and mixed numbers using area and length models. Then solve the equations.	✓	✓		✓		
Tiny and Tinier 6.3(E)	Multiply Fractions Students multiply fractions using models and equations. Then they tell whether the product is larger or smaller than what they started with.		✓	✓		✓	
The Worst Restaurant on the Moon 6.3(E)	Multiply Fractions and Mixed Numbers Students practice multiplying fractions and mixed numbers.		✓	✓		✓	
Sharing Food 6.3(A), 6.3(E)	Division of Fractions and Mixed Numbers Students use models and drawings to divide fractions and mixed numbers.	✓	✓		✓		
Equation and Solutions 6.3(A), 6.3(E)	Connect Fraction Division Problems with Equations and Solutions Students match word problems with fraction division and multiplication equations to solve problems.		✓	✓		✓	
It's a Set Up 6.3(E)	Patterns in Multiplication and Division of Fractions This activity contains 6 sets of either fraction division or multiplication problems. Work focuses on the similarity between the problems, so students see the patterns in the operations. These sets may be used all together or broken up over several days.		✓	✓		✓	✓

Multiplication and Division of Decimals						
Millie the Millipede 6.3(E)	Multiply Decimals Less Than One Students estimate products, then use models to multiply decimals that are less than one.	✓	✓		✓	
Athletic Alex 6.3(E)	Multiply Decimals Larger Than One Students estimate products, then use models to multiply decimals that are greater than one.	✓	✓		✓	
Set Patterns 6.3(E)	Patterns in Multiplication of Decimals This activity contains 6 problem sets designed to teach students the patterns of the decimals and why the patterns exist for multiplying decimals. Sets can be used together to broken up over several days.		✓	✓		✓
How Many Can I Buy? 6.3(E)	Dividing Decimals Student estimate quotients, partition a model, and divide decimals.	✓	✓		✓	
How Much Should I Buy? 6.3(E)	Dividing Decimals Student estimate quotients, partition a model, and divide decimals. Some quotients terminate, some repeat, and some neither terminate or repeat and have to be rounded.	✓	✓		✓	
Multiplication and Division of Fractions and Decimals						
Feeding the Zoo 6.3(E)	Multiplication and Division of Rational Numbers Students solve problems that contain both fractions and decimals.		✓	✓		✓