

COMMON CORE STATE STANDARDS 2010

**FrameworkGUIDE
Mathematics, Grade 6**

Unit	Essential Standards	Supporting Standards	Resources
Unit: Compute Fluently & Find Common Factors & Multiples Time: 12 days Standards for Mathematical Practice: 4, 7, 8 Content • Addition of whole numbers and decimals • Subtraction of whole numbers and decimals • Multiplication of whole numbers and decimals • Division of whole numbers and decimals • Factors/multiples • Distributive property • Greatest common factor • Least common multiple	6.NS.02 Compute fluently with multi-digit numbers and find common factors and multiples. Fluently divide multi-digit numbers using the standard algorithm. 6.NS.03 Compute fluently with multi-digit numbers and find common factors and multiples. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. 6.NS.04 Compute fluently with multi-digit numbers and find common factors and multiples. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9 + 2)$.</i>	6.RP.03b Understand ratio concepts and use ratio reasoning to solve problems. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i> 6.RP.03d Understand ratio concepts and use ratio reasoning to solve problems. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	TaskPERFORM • Factors & Multiples TargetStrategies • Dividing Multidigit Numbers • Operations with Decimals • Greatest Common Factors & Least Common Multiples TargetFundamentals NS036 Divide Two- and Three-Digit Numbers by One-Digit Numbers without Remainders NS054 Perform Basic Operations with Whole Numbers NS062 Divide a Decimal by a Whole Number NS064 Find the Prime Factorization of a Composite Number Using a Factor Tree NS066 Multiply Decimals NS073 Find the Least Common Multiple and Greatest Common Factor between Two Numbers NS074 Find the Prime Factorization of a Number CoreASSESS Compute Fluently & Find Common Factors & Multiples

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Unit	Essential Standards	Supporting Standards	Resources
Unit: Dividing Fractions by Fractions Time: 10 days Standards for Mathematical Practice: 1, 2, 4 Content • Multiplication of fractions • Division of fractions	6.NS.01 Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. <i>For example, create a story context for $\frac{2}{3} \div \frac{3}{4}$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $\frac{2}{3} \div \frac{3}{4} = \frac{8}{9}$ because $\frac{3}{4}$ of $\frac{8}{9}$ is $\frac{2}{3}$. (In general, $\frac{a}{b} \div \frac{c}{d} = \frac{ad}{bc}$.) How much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{3}{4}$-cup servings are in $\frac{2}{3}$ of a cup of yogurt? How wide is a rectangular strip of land with length $\frac{3}{4}$ mi and area $\frac{1}{2}$ square mi? </i>		TaskPERFORM • Modeling Division of Fractions TargetStrategies • Dividing Fractions TargetFundamentals NS065 Multiply and Divide Fractions PAL Packets (Parent Assisted Learning) • Single-Step Word Problems Involving Division of Fractions CoreASSESS Dividing Fractions by Fractions