

MP1b Number Operations

Content Area: **Math**
Course(s): **Math 6 ACC**
Time Period: **Marking Period 1**
Length: **Weeks 7-10 Go Math! Advanced Unit 2**
Status: **Published**

Essential Questions

- How can you use operations with fractions to solve real-world problems?
- How can you use operations with decimals to solve real-world problems?

Big Ideas

- Multiplication and division of fractions and mixed numbers
- Multiplication and division of decimals.
- Addition, subtraction, multiplication, and division of integers

Cross Curricular Integration

Integration Area: Language Arts

NJSLSA.W4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

NJSLSA.W5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.

NJSLSA.W6 . Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

NJSLSA.W7. Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.

NJSLSA.W8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Activity: Students will research and write a report explaining why Euclid is called the “Father of Geometry.” They will create a presentation that includes a description of how to use Euclid’s method to find the GCF of two numbers and a demonstration showing how to use the method.

Technology Connection

- 8.1.8.DA.1: Organize and transform data collected using computational tools to make it usable for a specific purpose.

Enduring Understandings

The Number System

6.NS.1 [M] 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. For example, create a story context for $(2/3) \div (3/4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2/3) \div (3/4) = 8/9$ because $3/4$ of $8/9$ is $2/3$. (In general, $(a/b) \div (c/d) = ad/bc$.) How much chocolate will each person get if 3 people share $1/2$ lb of chocolate equally? How many $3/4$ -cup servings are in $2/3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3/4$ mi and area $1/2$ square mi?

6.NS.2 Fluently divide multi-digit numbers using the standard algorithm

6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.4 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. For example, express $36 + 8$ as $4(9 + 2)$.

Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Lesson 4.4, 5.5
2. Reason abstractly and quantitatively. Lesson 4.3, 4.4, 5.1, 5.2, 5.4, 5.5
3. Construct viable arguments and critique the reasoning of others. Lesson 4.1, 4.2, 4.3, 5.1, 5.2, 5.3, 5.4, 5.5
4. Model with mathematics. Lesson 4.2, 4.3, 4.4, 5.1, 5.2, 5.3, 5.4, 5.5

5. Use appropriate tools strategically. Lesson 4.1, 5.3, 5.4
6. Attend to precision. Lesson 4.2, 4.3, 5.1, 5.3
7. Look for and make use of structure. Lesson 4.1, 4.2, 4.3, 5.2, 5.3, 5.4
8. Look for and express regularity in repeated reasoning. Lesson 5.3, 5.4