

**Grade: 7**

**Mastery Check**

**Benchmark #: 7.1.4.K2 a-dN (decimal and fraction computation)**

**1**

**State Language:**

Performs and explains these computational procedures: a) adds and subtracts decimals from ten millions place through hundred thousandths place; b) multiplies and divides a four-digit number a two-digit number using numbers from thousands place through thousandths place; c) multiples and divides using numbers from thousands place through thousandths place by 10, 100, 1000, .1, .01, .001; or single-digit multiples of each; d) adds, subtracts, multiplies, and divides fractions and expresses answers in simplest form.

**Student Friendly Language:**

Performs all four operations of decimals and fractions. Multiplies and divides by powers of 10.

**Concept (Students will know):**

- How to compute all four operations for rational numbers (decimals and fractions).
- Decimal point placement in all operations.
- Multiplying and dividing by powers of 10, decimal powers of 10 and the rules for them.
- How to express fractions in simplest form.
- Decimal place value

**Skills (Students will do):**

- Solve problems with all four operations of rational numbers (decimals and fractions.)
- Multiply and divide by powers of 10 and decimal powers of 10.
- Express fractions in simplest form.
- Memorize rules for all operations of rational numbers.

**DOK Level:**

**1**

**Big Ideas:**

Understanding computations of rational numbers will help you with decimals and fractions (rational numbers)  
Understand the importance of place value and rounding will help with decimal computation.

**Essential Questions:**

- What are the rules for each of the operations for decimals?
- What are the rules for each of the operations of fractions?
- What subset of the Real Number System are decimals and fractions?

**Core Materials**

Glencoe Mathematics Course 2

**Supplemental Materials:**

Teacher-generated materials  
Study Island, BAIP  
Glencoe Resource Materials

**Teaching Strategies:**

Guided practice  
Foldables for notes

**Mastery Check Items:**