

## NS The Number System

- **6.NS.A Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**
  - **6.NS.A.1 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.**
    - [Reciprocals \(6-L.2\)](#)
    - [Divide fractions by whole numbers in recipes \(6-L.4\)](#)
    - [Divide fractions \(6-L.5\)](#)
    - [Divide fractions and mixed numbers \(6-L.7\)](#)
    - [Divide fractions and mixed numbers: word problems \(6-L.8\)](#)
- **6.NS.B Compute fluently with multi-digit numbers and find common factors and multiples.**
  - **6.NS.B.2 Fluently divide multi-digit numbers using the standard algorithm.**
    - [Division patterns with zeroes \(6-C.2\)](#)
    - [Divide numbers ending in zeroes: word problems \(6-C.3\)](#)
    - [Divide whole numbers - 2-digit divisors \(6-C.5\)](#)
    - [Divide whole numbers - 3-digit divisors \(6-C.6\)](#)
  - **6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.**
    - [Add and subtract decimal numbers \(6-G.1\)](#)
    - [Add and subtract decimals: word problems \(6-G.2\)](#)
    - [Complete the decimal addition or subtraction sentence \(6-G.\)](#)
    - [Maps with decimal distances \(6-G.4\)](#)
    - [Multiply decimals \(6-H.2\)](#)
    - [Divide decimals by whole numbers \(6-H.4\)](#)
    - [Divide decimals by whole numbers: word problems \(6-H.5\)](#)
    - [Multiply and divide decimals by powers of ten \(6-H.6\)](#)
    - [Division with decimal quotients \(6-H.7\)](#)
    - [Add, subtract, multiply, or divide two decimals \(6-O.5\)](#)
    - [Add, subtract, multiply, or divide two decimals: word problems \(6-O.6\)](#)
  - **6.NS.B.4 Use prime factorization to 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 relatively prime numbers.**
    - [Identify factors \(6-E.4\)](#)
    - [Find all the factor pairs of a number \(6-E.5\)](#)
    - [Greatest common factor \(6-E.8\)](#)
    - [Least common multiple \(6-E.10\)](#)
    - [GCF and LCM: word problems \(6-E.12\)](#)
- **6.NS.C Apply and extend previous understandings of numbers to the system of rational numbers.**
  - **6.NS.C.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, and positive/negative electric charge). Use positive and negative numbers (whole numbers, fractions, and decimals) to represent quantities in real-world contexts, explaining the meaning of zero in each situation.**

- [Understanding integers \(6-M.1\)](#)
- **6.NS.C.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.**
  - **6.NS.C.6.a Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g.,  $-(-3) = 3$ , and that zero is its own opposite.**
    - [Understanding opposite integers \(6-M.4\)](#)
    - [Opposites of rational numbers \(6-P.7\)](#)
    - [Rational numbers: find the sign \(6-P.11\)](#)
  - **6.NS.C.6.b Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.**
    - [Quadrants \(6-X.3\)](#)
    - [Reflect a point over an axis \(6-X.\)](#)
  - **6.NS.C.6.c Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.**
    - [Decimal number lines \(6-F.8\)](#)
    - [Integers on number lines \(6-M.2\)](#)
    - [Graph integers on horizontal and vertical number lines \(6-M.3\)](#)
    - [Rational numbers on number lines \(6-P.1\)](#)
    - [Objects on a coordinate plane \(6-X.1\)](#)
    - [Graph points on a coordinate plane \(6-X.2\)](#)
- **6.NS.C.7 Understand ordering and absolute value of rational numbers.**
  - **6.NS.C.7.a Interpret statements of inequality as statements about the relative positions of two numbers on a number line diagram.**
    - [Compare integers \(6-M.7\)](#)
  - **6.NS.C.7.b Write, interpret, and explain statements of order for rational numbers in real-world contexts.**
    - [Compare and order rational numbers using number lines \(6-P.3\)](#)
    - [Compare rational numbers \(6-P.4\)](#)
    - [Put rational numbers in order \(6-P.5\)](#)
    - [Compare and order rational numbers: word problems \(6-P.6\)](#)
    - [Compare temperatures above and below zero \(6-T.9\)](#)
  - **6.NS.C.7.c Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation.**
    - [Understanding absolute value \(6-M.5\)](#)
    - [Absolute value \(6-M.6\)](#)
    - [Absolute value and integers: word problems \(6-M.10\)](#)
    - [Absolute value of rational numbers \(6-P.8\)](#)

- **6.NS.C.7.d Distinguish comparisons of absolute value from statements about order.**
  - [Integer inequalities with absolute values \(6-M.9\)](#)
  - [Put rational numbers in order \(6-P.5\)](#)
  - [Absolute value of rational numbers \(6-P.8\)](#)
- **6.NS.C.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.**
  - [Coordinate planes as maps \(6-X.4\)](#)
  - [Distance between two points \(6-X.5\)](#)
  - [Follow directions on a coordinate plane \(6-X.6\)](#)