



NOSD Fourth Grade Math Standards

Math

In fourth grade, students will use their understanding of place value to apply the standard addition, subtraction, multiplication, and division algorithms to solve a variety of multi-step problems.

They will deepen their knowledge of fractions and mixed numbers by creating equivalent fractions, comparing fractions, adding and subtracting with like denominators, and multiplying fractions by whole numbers.

Also, students will begin learning how fractions relate to decimals.

They will convert units of measurement using customary and metric units. Students will measure and identify angles.

Math skills taught in fourth grade include:

- Reading, writing, and comparing up to six-digit whole numbers
- Using strategies to multiply and divide whole numbers
- Adding and subtracting six-digit whole numbers quickly and accurately
- Relating factors, multiples, prime, and composite numbers
- Solving multi-step word problems, including problems involving customary and metric measurement, and converting measurements from larger to smaller units
- Common Fractions:
 - Introducing mixed numbers
 - Exploring equivalent fractions by comparing and ordering with different numerators and denominators, finding common denominators
 - Adding and subtracting common fractions and mixed numbers with like denominators
 - Multiplying whole numbers by a common fraction and a mixed number using number lines, area models, and with or without composing
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- Identifying types of angles using a protractor to measure
- Extending understanding of fractions by comparing the size of two fractions with different numerators (top numbers) and different denominators (bottom numbers)
- Creating equal fractions ($\frac{3}{4} = 3 \times \frac{2}{4} \times 2 = \frac{6}{8}$)
- Adding and subtracting fractions with the same denominator
- Building fractions from smaller fractions ($\frac{3}{8} = \frac{1}{8} + \frac{1}{8} + \frac{1}{8}$)
- Connecting addition and subtraction of whole numbers to multiplying fractions by whole numbers
- Connecting addition of fractions to the concept of angle measurement
- Representing and interpreting data
- Converting fractions with denominators of 10 or 100 into decimals
- Comparing decimals and fractions using the symbols $>$ (more than), $=$ (equal to), and $<$ (less than)