



MATHEMATICS GRADE 5

By the end of fifth grade, students will have had an opportunity to engage with the core concepts listed below.

- Add and subtract fractions with unlike denominators
- (ex: $2\frac{1}{4} - 1\frac{1}{3}$), and solve story problems of this kind.
- Generalize the place-value system to include decimals, and calculate with decimals to the hundredths place (two places after the decimal).
- Multiply whole numbers quickly and accurately (ex: $1,638 \times 753$ or $6,971 \div 63$).
- Understand the concept of volume, and solve story problems that involve volume.
- Multiply fractions; divide fractions in simple cases; solve related story problems.

As examples:

- Find the area of a rectangle with fractional side lengths and solve related story problems.
- Determine how many $\frac{1}{2}$ cup servings are in 2 cups of raisins; determining the size of a share if 9 people share a 50-pound sack of rice equally or if 3 people share $\frac{1}{2}$ pound of chocolate equally.
- Graph points in the coordinate plane (two dimensions) to solve problems.
- Analyze mathematical patterns and relationships.



QUESTIONS TO ASK YOUR STUDENT

- "Imagine you have a recipe that calls for $\frac{3}{4}$ cup of flour. You want to make half the recipe. How much flour will you need?"
- "You have a rectangular box that is 5 inches long, 3 inches wide, and 2 inches tall. What is the volume of the box?"
- "What do you already know about this problem?"
- "Can you draw a picture of what is happening?"
- "Does this remind you of a problem you have seen before?"



WAYS TO CHALLENGE THEIR THINKING

- Provide problems with more complex fractions, including adding and subtracting fractions with unlike denominators, multiplying fractions, and dividing fractions in various real-world contexts.
- Provide multi-step problems and real-life scenarios that require calculating with decimals to the hundredths place.
- Provide problems that involve calculating the volume of 3D objects, using both whole numbers and fractions.
- Provide activities for graphing points in the coordinate plane with graph paper and online graphing tools to explore patterns.