

Bridges in Mathematics Grade 5 Unit 2

Adding & Subtracting Fractions

In this unit your child will:

- Add and subtract fractions with unlike denominators
- Solve story problems involving addition and subtraction of fractions with unlike denominators
- Find common denominators for fractions with unlike denominators
- Find the greatest common factor and least common multiple to help simplify fractions and find common denominators
- Multiply multi-digit numbers



Your child will learn and practice these skills by solving problems like those shown below. Use the free Math Vocabulary Cards app for additional support: mathlearningcenter.org/apps.

PROBLEM	COMMENTS
<p>Compare these fractions.</p> $1\frac{1}{2} > \frac{13}{10}$ $\frac{3}{10} < \frac{3}{4}$	<p>Students use pictures to develop an understanding of fractions that they then extend to their work with numbers alone. To compare the first pair of fractions in this example, students can reason that $\frac{13}{10} = 1\frac{3}{10}$, and since $\frac{3}{10}$ is less than half ($\frac{5}{10}$), $\frac{13}{10}$ must be less than $1\frac{1}{2}$. They might notice that in the second pair of fractions, the numerator is the same: 3. Since tenths are smaller than fourths, $\frac{3}{10} < \frac{3}{4}$. They might also use $\frac{1}{2}$ as a landmark and see that since $\frac{3}{10} < \frac{1}{2}$ while $\frac{3}{4} > \frac{1}{2}$, $\frac{3}{10}$ must be less than $\frac{3}{4}$.</p>
<p>Show the fractions on the clocks. Then add them and report the sum.</p>	<p>Many problems—story problems and bare number problems alike—in this unit involve fractions with denominators that lend themselves to thinking about clock faces or money. Any fraction in which the denominator is a factor of 60 can be represented on a clock face, as part of the 60 minutes in an hour or a full rotation of a hand on a clock face, as shown here. The contexts of time and money are natural ways to ease students into thinking about adding and subtracting fractions with like and unlike denominators.</p>
<p>What is:</p> $\frac{1}{5} \text{ of } 60? \underline{12}$ $\frac{1}{4} \times 60? \underline{15}$ $\frac{1}{4} \text{ of } 100? \underline{25}$ $\frac{1}{10} \times 100? \underline{10}$	<p>Students multiply unit fractions (fractions with a 1 in the numerator) by whole numbers. Because so many of the problems in this unit invite them to think about fractions of an hour (60 minutes) or of a dollar (100 cents), these multiplication problems also involve finding some fraction of 60 or 100. Students come to see that they can find, for example, $\frac{1}{5}$ of 60 by dividing 60 by 5 and that this can be represented with multiplication notation.</p>