Instructor Intervention

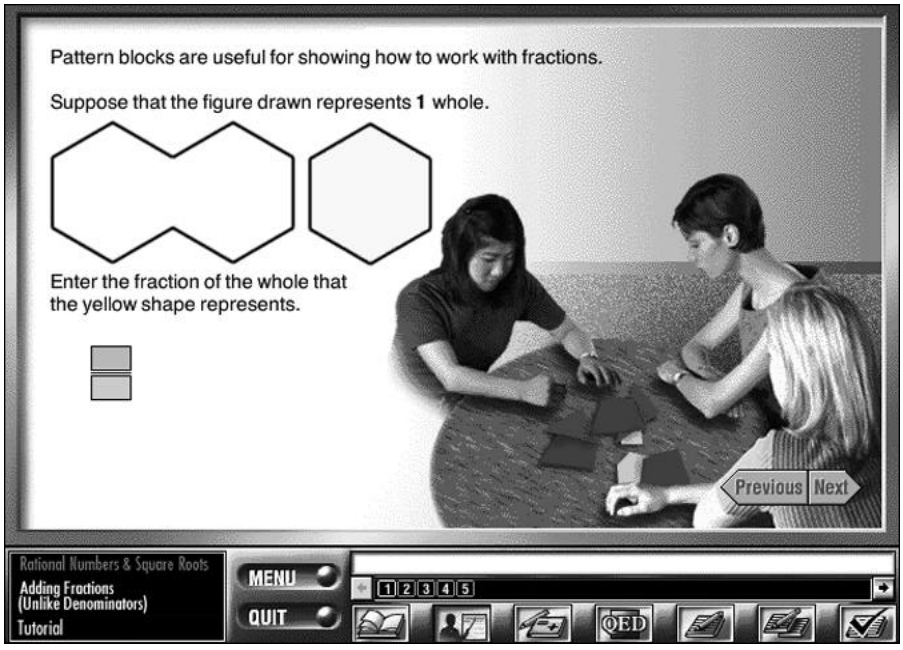
- The lesson uses computer-generated models of pattern blocks, fraction circles, and fraction strips to teach addition concepts. Have real materials (or paper models) available for students to use as they create and solve problems of their own.

- Several different addition models are demonstrated in the **Tutorial** and **Examples**. In each case, students discover that you must express both fractions in the same terms before you can find the sum.

  This concrete work will help students understand why two fractions can be added only if they have a common denominator. It will also help to develop mental imagery that students can draw on as they learn how to find the least common denominator.

- In many of the practice problems in this lesson, students are asked to estimate sums. As students complete the activities in these teaching notes, encourage them to estimate sums before they add, and to compare sums with estimates to see if they seem reasonable.

  From time to time, ask how students could refine their estimates to make them even closer to the actual sum. This will often require them to round to compatible numerators or denominators. For example:
  $\frac{3}{8} + \frac{1}{3}$ is close to $\frac{3}{9} + \frac{1}{3}$ or about $\frac{2}{3}$. The actual answer is a bit more than $\frac{2}{3}$, because $\frac{3}{8}$ is a bit more than $\frac{3}{9}$.



Lesson Components

Examples

Using Fraction Circles (1)
Renaming Fractions with the LCD (1)
Addends Greater than One (1)
Regrouping (1)

Practice and Problems

Estimation
Denominator Drop
The Language of Fractions
Fraction Strips
Error Analysis

Extra Practice

Using Fraction Circles
Renaming Fractions with the LCD
Addends Greater Than One
Regrouping

Self-Check

Using Fraction Circles (2)
Renaming Fractions with the LCD (2)
Addends Greater Than One (3)
Regrouping (3)

Minimum score: 7 out of 10