In this unit, students review finding equivalent fractions and further develop their computation skills with fractions and percents. Use the information in this section to develop your assessment plan for Unit 8.

**Ongoing Assessment**

Opportunities for using and collecting ongoing assessment information are highlighted in Informing Instruction and Recognizing Student Achievement notes. Student products, along with observations and suggested writing prompts, provide a range of useful assessment information.

**Informing Instruction**
The Informing Instruction notes highlight students’ thinking and point out common misconceptions. Informing Instruction in Unit 8: Lessons 8-1, 8-2, 8-3, 8-6, 8-8, and 8-12.

**Recognizing Student Achievement**
The Recognizing Student Achievement notes highlight specific tasks from which teachers can collect assessment data to monitor and document student progress toward meeting Grade-Level Goals.

### Assessment Overview

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Content Assessed</th>
<th>Where to Find It</th>
</tr>
</thead>
<tbody>
<tr>
<td>8•1</td>
<td>Compare fractions using benchmarks. [Number and Numeration Goal 6]</td>
<td>TLG, p. 619</td>
</tr>
<tr>
<td>8•2</td>
<td>Rename fractions to have common denominators and be in simplest form.</td>
<td>TLG, p. 627</td>
</tr>
<tr>
<td></td>
<td>[Number and Numeration Goal 5; Operations and Computation Goal 4]</td>
<td></td>
</tr>
<tr>
<td>8•3</td>
<td>Estimate sums and differences of mixed numbers using benchmarks.</td>
<td>TLG, p. 633</td>
</tr>
<tr>
<td></td>
<td>[Operations and Computation Goals 4 and 6]</td>
<td></td>
</tr>
<tr>
<td>8•4</td>
<td>Order fractions using benchmarks.</td>
<td>TLG, p. 637</td>
</tr>
<tr>
<td>8•5</td>
<td>Use a number-line model to solve fraction multiplication problems.</td>
<td>TLG, p. 644</td>
</tr>
<tr>
<td></td>
<td>[Operations and Computation Goal 5]</td>
<td></td>
</tr>
<tr>
<td>8•6</td>
<td>Use an area model to solve fraction multiplication problems.</td>
<td>TLG, p. 651</td>
</tr>
<tr>
<td></td>
<td>[Operations and Computation Goal 5]</td>
<td></td>
</tr>
<tr>
<td>8•7</td>
<td>Convert fractions to decimals and percents. [Number and Numeration Goal 5]</td>
<td>TLG, p. 657</td>
</tr>
<tr>
<td>8•8</td>
<td>Multiply mixed numbers. [Operations and Computation Goal 5]</td>
<td>TLG, p. 662</td>
</tr>
<tr>
<td>8•9</td>
<td>Convert between fractions, decimals, and percents. [Number and Numeration Goal 5]</td>
<td>TLG, p. 665</td>
</tr>
<tr>
<td>8•10</td>
<td>Use unit fractions and unit percents to solve problems. [Number and Numeration Goal 2]</td>
<td>TLG, p. 670</td>
</tr>
<tr>
<td>8•11</td>
<td>Add fractions. [Number and Numeration Goal 5; Operations and Computation Goal 4]</td>
<td>TLG, p. 678</td>
</tr>
<tr>
<td>8•12</td>
<td>Use a visual model to divide fractions. [Operations and Computation Goal 5]</td>
<td>TLG, p. 683</td>
</tr>
</tbody>
</table>
Math Boxes
Math Boxes, one of several types of tasks highlighted in the Recognizing Student Achievement notes, have an additional useful feature. Math Boxes in most lessons are paired or linked with Math Boxes in one or two other lessons that have similar problems. Paired or linked Math Boxes in Unit 8: 8-1 and 8-3; 8-2 and 8-4; 8-5 and 8-7; 8-6 and 8-8; 8-9 and 8-11; and 8-10 and 8-12.

Writing/Reasoning Prompts
In Unit 8, a variety of writing prompts encourage students to explain their strategies and thinking, to reflect on their learning, and to make connections to other mathematics or life experiences. Here are some of the Unit 8 suggestions:

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Writing/Reasoning Prompts</th>
<th>Where to Find It</th>
</tr>
</thead>
<tbody>
<tr>
<td>8•3</td>
<td>Explain one advantage and one disadvantage using number-and-word notation.</td>
<td>TLG, p. 634</td>
</tr>
<tr>
<td>8•3</td>
<td>Explain why some parallelograms are squares.</td>
<td>TLG, p. 634</td>
</tr>
<tr>
<td>8•5</td>
<td>Write one of the false number sentences. Then write it correctly so it is true and explain your solution.</td>
<td>TLG, p. 647</td>
</tr>
<tr>
<td>8•8</td>
<td>Explain how to use the division rule for finding equivalent fractions.</td>
<td>TLG, p. 662</td>
</tr>
<tr>
<td>8•9</td>
<td>Explain how to identify perpendicular sides and how to make a set of lines parallel by plotting new ordered pairs.</td>
<td>TLG, p. 667</td>
</tr>
<tr>
<td>8•9</td>
<td>Explain how to rename an improper fraction as a mixed number.</td>
<td>TLG, p. 668</td>
</tr>
</tbody>
</table>

Portfolio Opportunities
Portfolios are a versatile tool for assessment. They help students reflect on their mathematical growth and help teachers understand and document that growth. Each unit identifies several student products that can be selected and stored in a portfolio. Here are some of the Unit 8 suggestions:

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Portfolio Opportunities</th>
<th>Where to Find It</th>
</tr>
</thead>
<tbody>
<tr>
<td>8•2</td>
<td>Students explain how to find the values of variables.</td>
<td>TLG, p. 628</td>
</tr>
<tr>
<td>8•3</td>
<td>Students explain why some parallelograms are squares.</td>
<td>TLG, p. 634</td>
</tr>
<tr>
<td>8•4</td>
<td>Students use a flowchart to find common denominators before solving fraction addition problems.</td>
<td>TLG, p. 640</td>
</tr>
<tr>
<td>8•9</td>
<td>Students solve number stories by calculating the percent discount and the discounted total.</td>
<td>TLG, p. 668</td>
</tr>
<tr>
<td>8•11</td>
<td>Students interpret a data display to make a table and a line graph.</td>
<td>TLG, p. 679</td>
</tr>
<tr>
<td>8•12</td>
<td>Students use what they know about fractions, fraction multiplication, and their calculators to find reciprocals of numbers.</td>
<td>TLG, p. 685</td>
</tr>
<tr>
<td>8•13</td>
<td>Students solve a problem using equivalent fractions and adding fractions.</td>
<td>TLG, p. 689</td>
</tr>
</tbody>
</table>
Periodic Assessment

Every Progress Check lesson includes opportunities to observe students’ progress and to collect student products in a variety of ways—Self Assessment, Oral and Slate Assessment, Written Assessment, and an Open Response task. For more details, see the first page of Progress Check 8, Lesson 8-13 on page 686, of the Teacher’s Lesson Guide.

Progress Check Modifications

Written Assessments are one way students demonstrate what they know. The table below shows modifications for the Written Assessment in this unit. Use these to maximize opportunities for students to demonstrate what they know. Modifications can be given individually or written on the board for the class.

<table>
<thead>
<tr>
<th>Problem(s)</th>
<th>Modifications for Written Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>For Problems 1 and 2, use a laminated copy of the 100-grid on Math Masters, p. 435 and shade the fraction of the hundred grid. Use this to help you figure out the decimal and percent names for the fraction.</td>
</tr>
<tr>
<td>7, 8, 10, 11</td>
<td>For Problems 7, 8, 10 and 11, use a number line from Math Masters p. 434 to help you solve the problems. You may want to use a colored pencil or highlighter and trace over the tick marks that represent the division of the number line into quarter segments.</td>
</tr>
<tr>
<td>24</td>
<td>For Problem 24, record a number sentence(s) to show the steps for how you solved the problem.</td>
</tr>
<tr>
<td>25</td>
<td>For Problem 25, convert 75% to a fraction and draw a picture to help you solve the problem.</td>
</tr>
</tbody>
</table>

The Written Assessment for the Unit 8 Progress Check is on pages 191–192.
Open Response, Writing Egyptian Fractions

Description
For this task, students write equivalent expressions for fractions using unit fractions and addition.

Focus
◆ Use numerical expressions to find and represent equivalent names for fractions. [Number and Numeration Goal 5]
◆ Use mental arithmetic and paper-and-pencil algorithms to solve problems involving the addition of fractions; describe the strategies used and explain how they work. [Operations and Computation Goal 4]

Implementation Tips
◆ Remind students that they do not always have to start with the next largest unit fraction that will work. Once they have followed the process through the first time, they will have to look for another combination the second time.

Modifications for Meeting Diverse Needs
◆ Suggest a tree-diagram structure that students can use to organize their work. Have them begin with $\frac{9}{10}$. They can break $\frac{9}{10}$ into $\frac{1}{2}$ and $\frac{4}{10}$. Encourage them to simplify fractions each step of the way. (Simplify $\frac{4}{10}$ to $\frac{2}{5}$.) When they have a unit fraction at the end of any branch, have them circle it so they can keep track of the unit fractions.
◆ Have students describe how they might find multiple ways of writing $\frac{9}{10}$ as a sum of unit fractions. For example, Each time I will start with a unit fraction that I have not used. Then I know the combination will be different.

Improving Open Response Skills
After students complete the task, have them analyze several sample written explanations for Problem 1. Consider using some of the explanations included in the Sample Student Responses beginning on page 115 of this book. Record each explanation and the number sentence it describes on a piece of chart paper and give one to each group. Have students determine and record what information is missing from the explanation. Have them work together to write a clearer and more complete explanation.

Note: The wording and formatting of the text on the student samples that follow may vary slightly from the actual task your children will complete. These minor discrepancies will not affect the implementation of the task.
Rubric
This rubric is designed to help you assess levels of mathematical performance on this task. It emphasizes mathematical understanding with only a mention of clarity of explanation. Consider the expectations of standardized tests in your area when applying a rubric. Modify this sample rubric as appropriate.

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Records two fraction-addition number sentences that total $\frac{9}{10}$, and uses only unit-fraction addends. Does not repeat a unit fraction within a number sentence. Completely explains or shows how to determine which unit fraction combinations make the target sum of $\frac{9}{10}$.</td>
</tr>
<tr>
<td>3</td>
<td>Records at least one fraction-addition number sentence that totals $\frac{9}{10}$, and uses only unit-fraction addends. Does not repeat a unit fraction in the number sentence. Attempts to explain how to determine the fraction combination, but the explanation might need clarification. For Problem 2, shows work related to the problem, but it might be incomplete or have errors.</td>
</tr>
<tr>
<td>2</td>
<td>Attempts to record a fraction-addition number sentence that totals $\frac{9}{10}$ using unit-fraction addends, and does not repeat a unit fraction in the number sentence. There might be minor errors. Attempts to explain or show how to determine the fraction combination, but the explanation might be incomplete or have errors.</td>
</tr>
<tr>
<td>1</td>
<td>Attempts to record a fraction-addition number sentence that totals $\frac{9}{10}$. Might attempt to explain how to determine the fraction combination, but the explanation might not make sense in the context of the problem.</td>
</tr>
<tr>
<td>0</td>
<td>Does not attempt to solve the problem.</td>
</tr>
</tbody>
</table>
Sample Student Responses

This Level 4 paper illustrates the following features: The fraction $\frac{9}{10}$ is represented in 2 different ways using unit fractions. In Problem 1, the explanation describes how to use the Greedy Method. The work shows keeping track of tenths. One half is $\frac{5}{10}$, $\frac{1}{3}$ is $3\frac{1}{3}$ tenths, and $\frac{1}{15}$ is $\frac{2}{3}$ tenths for a total of $\frac{9}{10}$. The second solution is derived in a similar way.

This Level 4 paper illustrates the following features: The fraction $\frac{9}{10}$ is represented in 2 different ways using unit fractions. In Problem 1, the explanation describes starting with $\frac{1}{2}$ (the largest unit fraction) and taking $\frac{1}{10}$ out of the remaining $\frac{4}{10}$. Three tenths is converted to a decimal to make it easier to compare the unit fractions—that is, $\frac{1}{3}$ is larger than $\frac{3}{10}$, but $\frac{1}{4}$ will fit. Decimals are finally converted back into fractions.
This Level 3 paper illustrates the following features: The fraction $\frac{9}{10}$ is represented in 2 different ways using unit fractions. The explanation for the first problem describes working with $\frac{4}{5}$ and finding what is left to be subtracted. Some of the steps are missing, but the work and the explanation together support the final sums.

This Level 3 paper illustrates the following features: The fraction $\frac{9}{10}$ is represented in 2 different ways using unit fractions. The first strategy involves trying to use an area fraction model (circles and rectangle), but it is quickly deserted. The explanation describes estimating and using equivalent fractions, but needs some clarification. The explanation does not match the work shown on the page.
This Level 2 paper illustrates the following features: The fraction $\frac{9}{10}$ is represented in 2 different ways using unit fractions. The explanation is missing. The work shown for Problem 1 supports the final number sentence. For Problem 2, the solution repeats tenths.

This Level 1 paper illustrates the following features: There is evidence of some understanding that unit fractions have numerators of 1, but there is no evidence of understanding how to use fraction concepts to solve the problem.
Think about each skill listed below. Assess your own progress by checking the most appropriate box.

<table>
<thead>
<tr>
<th>Skills</th>
<th>I can do this on my own and explain how to do it.</th>
<th>I can do this on my own.</th>
<th>I can do this if I get help or look at an example.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Convert among fractions, decimals, and percents.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Find common denominators.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Order and compare fractions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Use an algorithm to subtract mixed numbers with like denominators.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Use an algorithm to add mixed numbers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Convert between fractions and mixed or whole numbers.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Find a percent of a number.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Use an algorithm to multiply fractions and mixed numbers.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Part A

Write each fraction as a decimal and a percent.

1. $\frac{7}{10}$, ____
2. $\frac{8}{25}$, ____

3. What is a common denominator for $\frac{1}{4}$ and $\frac{4}{7}$? _______

4. Explain how you found the common denominator in Problem 3.

________________________________________________________

5. Is $\frac{13}{25}$ greater than or less than $\frac{1}{2}$? __________________

6. Explain how you decided on your answer for Problem 5.

________________________________________________________

7. a. Use your ruler to draw a line segment $2\frac{1}{4}$ inches long.

b. If you erased $\frac{3}{4}$ inch from this line segment, how long would the new line segment be? _______ in.

Add or subtract. Write your answer in simplest form.

8. $\frac{5}{8} + \frac{3}{4} =$ ______
9. $\frac{1}{2} - \frac{2}{3}$
10. $\frac{5}{8} - \frac{1}{2}$
11. $\frac{3}{4} + 1\frac{1}{2}$

12. $3\frac{3}{7} - 1\frac{6}{7} =$ ______
13. $3\frac{1}{3} + 1\frac{7}{8} =$ ______
14. $2\frac{1}{5} - 1\frac{4}{5} =$ ______

Fill in the missing number.

15. $3\frac{5}{8} = 2 \boxed{8}$
16. $5\frac{2}{6} = \boxed{8} \frac{8}{6}$
17. $3\frac{1}{7} = 2 \boxed{7}$
18. $6\frac{5}{9} = \boxed{14} \frac{14}{9}$
19. Fill in the oval next to possible common denominators for each fraction pair.  
(There may be more than one correct answer.)

<table>
<thead>
<tr>
<th>a. ( \frac{1}{3} ) and ( \frac{4}{9} )</th>
<th>b. ( \frac{3}{4} ) and ( \frac{5}{6} )</th>
<th>c. ( \frac{5}{8} ) and ( \frac{2}{3} )</th>
<th>d. ( \frac{3}{12} ) and ( \frac{2}{5} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 3</td>
<td>0 4</td>
<td>0 3</td>
<td>0 5</td>
</tr>
<tr>
<td>0 6</td>
<td>0 6</td>
<td>0 8</td>
<td>0 7</td>
</tr>
<tr>
<td>0 9</td>
<td>0 12</td>
<td>0 12</td>
<td>0 30</td>
</tr>
<tr>
<td>0 12</td>
<td>0 24</td>
<td>0 24</td>
<td>0 60</td>
</tr>
</tbody>
</table>

20. List the eight fractions from Problem 19 in order from smallest to largest.

smallest

\[ \frac{1}{3}, \frac{3}{4}, \frac{5}{8}, \frac{3}{12}, \frac{4}{9}, \frac{5}{6}, \frac{2}{3}, \frac{2}{5} \]

largest

21. If you draw a line segment twice as long as a \( 2\frac{1}{4} \)-inch line segment, how long would the new line segment be? (Circle one.)

\[ \frac{4\frac{6}{16}}{4\frac{2}{4}}, \frac{4\frac{3}{8}}{4\frac{3}{16}} \]

22. Bobbie measured the growth of her corn plant every week.  
One Friday, it was \( 3\frac{7}{8} \) inches tall. The following Friday, it was \( 6\frac{3}{8} \) inches tall. How much had it grown in one week? _________ in.

23. Explain how you found your answer for Problem 22.

24. How many minutes are in \( \frac{1}{3} \) of an hour? _______ min

25. Mary Lou baked 36 cupcakes for the bake sale. If 75% of them had chocolate frosting, how many cupcakes had chocolate frosting? _________ cupcakes

Multiply or divide. Write your answer in simplest form. Draw a picture on the back to help you solve the problems if necessary.

26. \( \frac{3}{8} \times \frac{4}{5} = _____ \)  
27. \( \frac{3}{5} \times \frac{4}{8} = _____ \)  
28. \( \frac{1}{2} \div 6 = _____ \)  
29. \( 5 \div \frac{1}{4} = _____ \)
Writing Egyptian Fractions

A fifth grade class was doing research about fractions. They’ve found that the ancient Egyptians wrote all of their fractions as a sum of unit fractions where no unit fraction is repeated.

For example, you cannot write $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$. One way to write it would be: $\frac{1}{2} + \frac{1}{4}$.

An algorithm for finding a unit fraction expression for any fraction is the Greedy Method. To use the Greedy Method on fraction $X$:

Start with the largest unit fraction less than fraction $X$. Then continue in the same manner to represent the remaining value.

**Example:** Represent $\frac{7}{8}$ as a sum of unit fractions.

**Step 1:** $\frac{7}{8} = \frac{1}{2} + \frac{3}{8}$

$\frac{1}{2}$ is the largest unit fraction $< \frac{7}{8}$

**Step 2:** $\frac{7}{8} = \frac{1}{2} + \frac{1}{4} + \frac{1}{8}$

$\frac{1}{4}$ is the largest unit fraction $< \frac{3}{8}$

1. Represent $\frac{9}{10}$ as a sum of unit fractions. Show all of your work. Explain your thinking.

2. Represent $\frac{9}{10}$ as a sum of unit fractions in a different way. Show all of your steps.
Part A

Write each fraction as a decimal and a percent.

1. \(\frac{1}{5} = 0.2 = 20\%\)
2. \(\frac{3}{50} = 0.06 = 6\%\)
3. What is a common denominator for \(\frac{1}{4}\) and \(\frac{5}{2}\)?
   Sample answer: I multiplied the two denominators: \(4 \times 2 = 8\).
4. Explain how you found the common denominator in Problem 3.
   I multiplied the two denominators: \(4 \times 2 = 8\).
5. Is \(\frac{13}{20}\) greater than or less than \(\frac{1}{2}\)?
   Greater than.
6. Explain how you decided on your answer for Problem 5.
   Sample answer: I changed \(\frac{6}{10}\) to \(\frac{3}{5}\), then I subtracted \(\frac{2}{5}\).
7. a. Use your ruler to draw a line segment 2\(\frac{3}{4}\) inches long.
   b. If you erased \(\frac{2}{3}\) inch from this line segment, how long would the new line segment be?
   \(\frac{5}{4}\) in.

Add or subtract. Write your answer in simplest form.

8. \(\frac{2}{3} - \frac{1}{4} = \frac{5}{12}\)
9. \(\frac{1}{2} - \frac{3}{5} = \frac{1}{10}\)
10. \(\frac{5}{8} + \frac{1}{4} = \frac{7}{8}\)
11. \(\frac{3}{4} + \frac{1}{3} = \frac{13}{12}\)
12. \(\frac{2}{3} - \frac{1}{4} = \frac{5}{12}\)
13. \(\frac{3}{4} + \frac{1}{2} = \frac{5}{8}\)
14. \(\frac{1}{2} - \frac{1}{4} = \frac{1}{4}\)

Fill in the missing number.

15. \(\frac{3}{5} = \frac{5}{10}\)
16. \(\frac{5}{6} = \frac{10}{12}\)
17. \(\frac{3}{2} + \frac{1}{4} = \frac{7}{4}\)
18. \(\frac{5}{6} - \frac{1}{2} = \frac{1}{3}\)

Part B

If you draw a line segment twice as long as a 2\(\frac{1}{2}\)-inch line segment, how long would the new line segment be?

\(5\frac{1}{2}\) in.

21. If you erased \(\frac{2}{3}\) inch from this line segment, how long would the new line segment be?
   \(\frac{5}{4}\) in.

22. Bobble measured the growth of her corn plant every week.
   One Friday, it was 3\(\frac{1}{2}\) inches tall. The following Friday, it was 6\(\frac{3}{4}\) inches tall. How much had it grown in one week?
   \(3\frac{1}{4}\) in.

23. Explain how you found your answer for Problem 22.
   Sample answer: I changed \(\frac{3}{2}\) to \(\frac{6}{4}\). Then I subtracted \(\frac{3}{4}\) from \(\frac{6}{4}\), or \(\frac{3}{4}\).

24. How many minutes are in \(\frac{1}{3}\) of an hour?
   \(20\) min

25. Mary Lou baked 36 cupcakes for the bake sale. If 75\% of them had chocolate frosting, how many cupcakes had chocolate frosting?
   \(27\) cupcakes

Multiply or divide. Write your answer in simplest form. Draw a picture on the back to help you solve the problems if necessary.

26. \(\frac{2}{5} \times \frac{1}{2} = \frac{1}{5}\)
27. \(\frac{3}{4} \times \frac{4}{5} = \frac{12}{20}\)
28. \(\frac{3}{4} \times \frac{1}{2} = \frac{1}{4}\)
29. \(\frac{3}{4} \times \frac{1}{2} = \frac{1}{4}\)
## Individual Profile of Progress

### Name: __________________________  Date: __________

**Lesson** | **Recognizing Student Achievement** | **A.P.*** | **Comments**
---|---|---|---
8•1 | Compare fractions using benchmarks. [Number and Numeration Goal 6] | | |
8•2 | Rename fractions to have common denominators and be in simplest form. [Number and Numeration Goal 5; Operations and Computation Goal 4] | | |
8•3 | Estimate sums and differences of mixed numbers using benchmarks. [Operations and Computation Goals 4 and 6] | | |
8•4 | Order fractions. [Number and Numeration Goal 6] | | |
8•5 | Use a number-line model to solve fraction multiplication problems. [Operations and Computation Goal 5] | | |
8•6 | Use an area model to solve fraction multiplication problems. [Operations and Computation Goal 5] | | |
8•7 | Convert fractions to decimals and percents. [Number and Numeration Goal 5] | | |
8•8 | Multiply mixed numbers. [Operations and Computation Goal 5] | | |
8•9 | Convert between fractions, decimals, and percents. [Number and Numeration Goal 5] | | |
8•10 | Use unit fractions and unit percents to solve problems. [Number and Numeration Goal 2] | | |
8•11 | Add fractions. [Number and Numeration Goal 5; Operations and Computation Goal 4] | | |
8•12 | Use a visual model to divide fractions. [Operations and Computation Goal 5] | | |

*Assess Progress:  
  **A** = adequate progress  
  **N** = not adequate progress  
  **N/A** = not assessed
### Individual Profile of Progress

#### Unit 8

**Name**  
**Date**

<table>
<thead>
<tr>
<th>Problem(s)</th>
<th>Progress Check 8</th>
<th>A.P.*</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oral/Slate Assessment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1 | Indicate if given fractions and mixed numbers are equivalent or not.  
[Number and Numeration Goal 5] | | |
| 2 | Indicate if the product of multiplying fractions is correct or not.  
[Operations and Computation Goal 5] | | |
| 3 | Find a common denominator for given pairs of fractions.  
[Number and Numeration Goal 5] | | |
| 4 | Find the percent of given numbers.  
[Number and Numeration Goal 2] | | |
| **Written Assessment Part A** | | | |
| 1, 2 | Convert between fractions, decimals, and percents.  
[Number and Numeration Goal 5] | | |
| 3, 4, 8–11, 13, 19 | Find common denominators.  
[Number and Numeration Goal 5] | | |
| 5, 6, 20 | Order and compare fractions using benchmarks.  
[Number and Numeration Goal 6] | | |
| 7 | Measure to the nearest \(\frac{1}{4}\) inch.  
[Measurement and Reference Frames Goal 1] | | |
| 7, 9, 10, 12, 14 | Use an algorithm to subtract fractions and mixed numbers.  
[Operations and Computation Goal 4] | | |
| 8, 11, 13 | Use an algorithm to add fractions and mixed numbers.  
[Operations and Computation Goal 4] | | |
| 15–18 | Convert between fractions and whole or mixed numbers.  
[Number and Numeration Goal 5] | | |
| **Written Assessment Part B** | | | |
| 22, 23 | Use an algorithm to subtract mixed numbers.  
[Operations and Computation Goal 4] | | |
| 25 | Find a percent of a number.  
[Number and Numeration Goal 2] | | |
| 21, 24, 26, 27 | Multiply fractions and mixed numbers.  
[Operations and Computation Goal 5] | | |
| 28, 29 | Divide fractions.  
[Operations and Computation Goal 5] | | |

**Assess Progress:**  
- **A** = adequate progress  
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- **N/A** = not assessed

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# Class Checklist: Recognizing Student Achievement

**Unit 8**

### Class Checklist

**Class**

**Date**

<table>
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# Class Checklist:
### Progress Check 8

<table>
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<tr>
<th>Oral/Slate</th>
<th>Part A</th>
<th>Part B</th>
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</thead>
<tbody>
<tr>
<td>1. Indicate if given fractions and mixed numbers are equivalent or not. (Number and Numeration Goal 5)</td>
<td>1. 12, 13, 14, 16. Use an algorithm to add fractions and mixed numbers. (Operations and Computation Goal 4)</td>
<td>22. 23. Use an algorithm to subtract mixed numbers. (Number and Numeration Goal 5)</td>
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<tr>
<td>2. Indicate if the product of multiplying fractions is correct or not. (Operations and Computation Goal 5)</td>
<td>2. 5, 6, 9. Order and compare fractions using benchmarks. (Number and Numeration Goal 6)</td>
<td>25. Find a percent of a number. (Number and Numeration Goal 2)</td>
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<td>3. Find a common denominator for given pairs of fractions. (Number and Numeration Goal 5)</td>
<td>3. 9, 10, 11, 12, 13, 15, 16. Use an algorithm to subtract fractions and mixed numbers. (Operations and Computation Goal 4)</td>
<td>21, 24, 26, 27. Multiply fractions and mixed numbers. (Operations and Computation Goal 5)</td>
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<td>4. Find the percent of given numbers. (Number and Numeration Goal 2)</td>
<td>4. 1, 2. Convert between fractions, decimals, and percents. (Number and Numeration Goal 5)</td>
<td>28, 29. Divide fractions. (Operations and Computation Goal 5)</td>
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## Names

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