Compare and Order Fractions and Decimals

Compare \( \frac{2}{5} \) and \( \frac{1}{3} \).

**Step 1:** Find the Least Common Multiple (LCM) of the denominators of the fractions.

- Multiples of 5: 5, 10, 15, 20, \ldots
- Multiples of 3: 3, 6, 9, 12, 15, \ldots

The LCM of 5 and 3 is 15. So, use 15 as the common denominator.

**Step 2:** What number multiplied by the denominator will give you the common denominator? Multiply both parts of the fraction by that number.

\[
\begin{align*}
\frac{2}{5} \times 3 &= \frac{6}{15} \\
\times 3 &
\end{align*}
\]

\[
\begin{align*}
\frac{1}{3} \times 5 &= \frac{5}{15} \\
\times 5 &
\end{align*}
\]

**Step 3:** Since the denominators are the same, look at the numerators to compare the fractions.

\( \frac{6}{15} \) > \( \frac{5}{15} \)

So \( \frac{2}{5} > \frac{1}{3} \).

To put fractions and decimals in order, write them in the same form. Then compare.

**Step 1:** Order 1.2, \( \frac{3}{5} \), and 1.25 from least to greatest.

**Step 2:** Since two of the numbers are decimals, write the mixed number as a decimal.

\( \frac{3}{5} = 0.6 \) and \( \frac{6}{10} = 1.6 \)

**Step 3:** Order the numbers in decimal form.

1.2 < 1.25 < 1.6

**Step 4:** Then order the numbers in their original form.

1.2 < 1.25 < \( \frac{3}{5} \)

Compare. Write >, <, or = for each \( \bigcirc \).

1. \( \frac{5}{11} \bigcirc \frac{8}{11} \)  
2. \( \frac{2}{3} \bigcirc \frac{1}{2} \)  
3. \( \frac{1}{3} \bigcirc \frac{5}{6} \)  
4. \( \frac{1}{10} \bigcirc \frac{4}{5} \)

5. \( \frac{7}{12} \bigcirc \frac{7}{8} \)  
6. \( \frac{5}{8} \bigcirc \frac{5}{12} \)  
7. \( \frac{1}{10} \bigcirc 0.01 \)  
8. \( \frac{1}{5} \bigcirc 1.2 \)

9. \( \frac{3}{5} \bigcirc \frac{5}{8} \)  
10. \( \frac{13}{20} \bigcirc 0.7 \)  
11. \( \frac{3}{4} \bigcirc 1.34 \)  
12. \( \frac{1}{5} \bigcirc 2.3 \)

Use with text pages 248–250.