

Lesson 2 Reteach

Side A

Compare and Order Rational Numbers

To compare fractions, rewrite them so they have the same denominator. The **least common denominator (LCD)** of two fractions is the **LCM** of their denominators.

Another way to compare fractions is to express them as decimals. Then compare the decimals.

Example 1

Which fraction is greater, $\frac{3}{4}$, or $\frac{4}{5}$?

Method 1 Rename using the LCD.

$$\begin{array}{l} \frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20} \\ \frac{4}{5} = \frac{4 \times 4}{5 \times 4} = \frac{16}{20} \end{array} \quad \begin{array}{c} \swarrow \\ \searrow \end{array} \quad \boxed{\text{The LCD is 20.}}$$

Because the denominators are the same, compare numerators.

Since $\frac{16}{20} > \frac{15}{20}$, then $\frac{4}{5} > \frac{3}{4}$.

Method 2 Graph each rational number on a number line.



The number line shows that $\frac{4}{5} > \frac{3}{4}$.

Exercises

Replace each \bullet with $<$, $>$, or $=$ to make a true sentence.

Use a number line if necessary.

1. $\frac{1}{2} \bullet \frac{3}{8}$

2. $\frac{4}{5} \bullet \frac{8}{10}$

3. $\frac{3}{4} \bullet \frac{7}{8}$

4. $\frac{1}{2} \bullet \frac{5}{9}$

5. $\frac{9}{14} \bullet \frac{3}{7}$

6. $-\frac{5}{7} \bullet -\frac{6}{11}$

7. $-3\frac{1}{3} \bullet -3\frac{2}{6}$


8. $4\frac{9}{10} \bullet 4\frac{3}{5}$


Lesson 2 Skills Practice


Compare and Order Rational Numbers


Replace each  with $<$, $>$, or $=$ to make a true sentence.


1. $\frac{4}{7}$  $\frac{3}{5}$


2. $\frac{5}{12}$  $\frac{7}{24}$


3. $\frac{6}{28}$  $\frac{3}{7}$

4. $\frac{7}{15}$  $\frac{1}{4}$


5. $\frac{7}{11}$  $\frac{3}{5}$


6. $\frac{5}{17}$  $\frac{7}{8}$


7. $\frac{5}{12}$  $\frac{7}{10}$


8. $\frac{15}{16}$  $\frac{1}{4}$


9. $\frac{5}{8}$  $\frac{3}{5}$


10. $\frac{3}{10}$  $\frac{2}{9}$


11. $-\frac{3}{7}$  $-\frac{5}{7}$


12. $\frac{9}{12}$  $\frac{3}{4}$


13. $-\frac{4}{5}$  $-\frac{2}{3}$

14. $\frac{4}{5}$  $\frac{5}{4}$

15. $1\frac{1}{3}$  $1\frac{1}{2}$

16. $1\frac{1}{7}$  $\frac{8}{7}$

17. $3\frac{4}{7}$  $3\frac{7}{8}$

18. $1\frac{2}{3}$  $1\frac{3}{4}$

Order each set of numbers from least to greatest.

19. 0.48, 0.46, $\frac{9}{20}$


20. 0.99, 0.89, $\frac{7}{8}$

21. $\frac{1}{4}$, 0.2, 0.4


Lesson 2 Homework Practice**Compare and Order Rational Numbers****Side B**


Replace each  with $>$, $<$, or $=$ to make a true sentence.


Use a number line if necessary.


1. $\frac{5}{6}$  $\frac{1}{3}$


2. $\frac{4}{5}$  $\frac{9}{10}$


3. $\frac{6}{9}$  $\frac{4}{6}$

4. $\frac{2}{7}$  $\frac{1}{8}$


5. $\frac{15}{21}$  $\frac{12}{18}$


6. $\frac{24}{32}$  $\frac{36}{48}$


7. $-\frac{8}{11}$  $-\frac{10}{11}$

8. $\frac{14}{15}$  $\frac{19}{20}$

9. $4\frac{1}{5}$  $4\frac{2}{10}$


10. $7\frac{4}{9}$  $7\frac{2}{3}$


11. $-1\frac{17}{20}$  $-1\frac{8}{10}$

12. $9\frac{1}{2}$  $9\frac{5}{6}$

13. 1 out of 2  8 out of 10

14. 0.65  65 out of 100

15. 4 out of 5  $\frac{3}{4}$

16. 1 out of 3  1.3

17. $\frac{2}{3}$ mile  $\frac{2}{5}$ mile

18. $\frac{7}{10}$ gram  0.72 gram

19. $\frac{3}{8}$ yard  $\frac{1}{4}$ yard

20. $2\frac{1}{2}$ quarts  $2\frac{3}{5}$ quarts

List each set of numbers in order from least to greatest.

21. $\frac{3}{5}$, $\frac{2}{3}$, 0.65

22. $\frac{7}{8}$, 0.98, $\frac{8}{9}$

23. 0.2, $\frac{1}{4}$, $\frac{1}{12}$

- 24. BASEBALL** The pitchers for the home team had 12 strikeouts for 32 batters, while the pitchers for the visiting team had 15 strikeouts for 35 batters. Which pitching team had a greater fraction of strikeouts?

- 25. TRANSPORTATION** To get to school, $\frac{19}{50}$ of the students ride in the family vehicle, 5 out of 12 students ride on the school bus, and 0.12 of the students ride a bike. Order the types of transportation students use to get to school from least to greatest.

Lesson 2 Problem-Solving Practice

Compare and Order Rational Numbers

<p>1. RAIN The amount of rainfall was measured after a recent storm. The north side of town received $\frac{7}{8}$ inch of rain, and the south side received $\frac{13}{15}$ inch of rain. Which side of town received more rain from the storm?</p>	<p>2. MOVIES Because he sees movies at his local theater so often, Delmar is being offered a discount. He can have either $\frac{1}{3}$ off his next ticket or $\frac{3}{10}$ off his next ticket. Which discount should Delmar choose? Explain.</p>
<p>3. TRACK Willie runs the 110-meter hurdles in $17\frac{3}{5}$ seconds, and Anier runs it in $17\frac{6}{11}$ seconds. Which runner is faster?</p>	<p>4. FARMING Cassie successfully harvested $\frac{7}{12}$ of her crop, and Robert successfully harvested $\frac{29}{50}$ of his crop. Which person successfully harvested the larger portion of his or her crop?</p>
<p>5. TRANSPORTATION My-Lien has enough room in her truck to move 3.385 tons of gravel. Her father has asked her to move $3\frac{5}{16}$ tons. Will My-Lien be able to move all of the gravel in only one trip? Explain.</p>	<p>6. WOOD WORKING Kishi has a bolt that is $\frac{5}{8}$ inch wide, and she drilled a hole 0.6 inch wide. Is the hole large enough to fit the bolt? Explain.</p>
<p>7. PIZZA In a recent pizza-eating contest, Alfonso ate $1\frac{3}{8}$ pizzas, Della ate $1\frac{3}{10}$ pizzas, and Jack ate $1\frac{4}{9}$ pizzas. Which person won the contest?</p>	<p>8. STUDYING For a recent algebra exam, Pat studied $1\frac{8}{15}$ hours, Toni studied $1\frac{11}{20}$ hours, and Morgan studied $1\frac{9}{16}$ hours. List the students in order by who studied the most.</p>