NAME ANSWERS DATE _____ PERIOD _____

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.

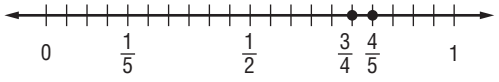
$$\frac{3}{4} = \frac{3 \times 5}{4 \times 5} = \frac{15}{20}$$
$$\frac{4}{5} = \frac{4 \times 4}{5 \times 4} = \frac{16}{20}$$

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 ○ with <, >, or = to make a true sentence. Use a number line if necessary.

1. $\frac{1}{2} \bigcirc \frac{3}{8}$ $>$

2. $\frac{4}{5} \bigcirc \frac{8}{10}$ $=$

3. $\frac{3}{4} \bigcirc \frac{7}{8}$ $<$

4. $\frac{1}{2} \bigcirc \frac{5}{9}$ $<$

5. $\frac{9}{14} \bigcirc \frac{3}{7}$ $>$

6. $-\frac{5}{7} \bigcirc -\frac{6}{11}$ $<$

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

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

Lesson 2 Skills Practice

Compare and Order Rational Numbers

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

1. $\frac{4}{7} \bigcirc \frac{3}{5}$ **<**

2. $\frac{5}{12} \bigcirc \frac{7}{24}$ **>**

3. $\frac{6}{28} \bigcirc \frac{3}{7}$ **<**

4. $\frac{7}{15} \bigcirc \frac{1}{4}$ **>**

5. $\frac{7}{11} \bigcirc \frac{3}{5}$ **>**

6. $\frac{5}{17} \bigcirc \frac{7}{8}$ **<**

7. $\frac{5}{12} \bigcirc \frac{7}{10}$ **<**

8. $\frac{15}{16} \bigcirc \frac{1}{4}$ **>**

9. $\frac{5}{8} \bigcirc \frac{3}{5}$ **>**

10. $\frac{3}{10} \bigcirc \frac{2}{9}$ **>**

11. $-\frac{3}{7} \bigcirc -\frac{5}{7}$ **>**

12. $\frac{9}{12} \bigcirc \frac{3}{4}$ **=**

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

14. $\frac{4}{5} \bigcirc \frac{5}{4}$ **<**

15. $1\frac{1}{3} \bigcirc 1\frac{1}{2}$ **<**

16. $1\frac{1}{7} \bigcirc \frac{8}{7}$ **=**

17. $3\frac{4}{7} \bigcirc 3\frac{7}{8}$ **<**

18. $1\frac{2}{3} \bigcirc 1\frac{3}{4}$ **<**

Order each set of numbers from least to greatest.

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

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

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

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

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

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

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Lesson 2 Homework Practice

Side B

Compare and Order Rational Numbers

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

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

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

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

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

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

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? **the visiting team**

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. **0.12 (riding a bike), $\frac{19}{50}$ (riding in the family vehicle), 5 out of 12 (riding the school bus)**

Lesson 2 Problem-Solving Practice

Compare and Order Rational Numbers

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?

north

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.

$\frac{1}{3}$ off; $\frac{1}{3} > \frac{3}{10}$

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?

Anier

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?

Cassie

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.

Yes; $3\frac{5}{16} < 3.385$

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.

No; $\frac{5}{8} > 0.6$

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?

Jack

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.

Morgan, Toni, Pat