

Section 6 Concept Unit Grade 5

ACTIVITY 3 Comparing Fractions with Unlike Denominators

Materials:

Blackline Master: *Comparing Fractions 3A - 3B*, 1 per student

Transparency: *Comparing Fractions 3A*

Fraction Rectangles

Paper and pencil

1. Use *Comparing Fractions 3A* and the *Fraction Rectangles*.

Say: Build $\frac{1}{2}$ and $\frac{6}{8}$.

Is $\frac{1}{2}$ greater than or less than $\frac{6}{8}$?

2. Say: Find **A** on your worksheet.

Sketch $\frac{1}{2}$ on the top rectangle.

Sketch $\frac{6}{8}$ on the bottom rectangle.

Look at the *Fraction Rectangles*.

What do we need to do to compare these 2 fractions?

Trade the half for eighths.

Now we are comparing $\frac{4}{8}$ to $\frac{6}{8}$.

Is $\frac{4}{8}$ greater than or less than $\frac{6}{8}$?

If $\frac{4}{8}$ is less than $\frac{6}{8}$, then $\frac{1}{2}$ is less than $\frac{6}{8}$.

Look at the fraction sketches.

Divide the first rectangle into 8 equal parts.

Now we are comparing $\frac{4}{8}$ to $\frac{6}{8}$.

Is $\frac{4}{8}$ greater than or less than $\frac{6}{8}$?

If $\frac{4}{8}$ is less than $\frac{6}{8}$, then $\frac{1}{2}$ is less than $\frac{6}{8}$.

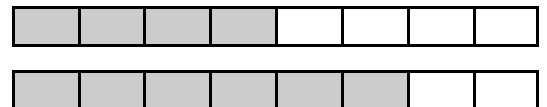
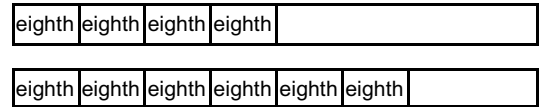
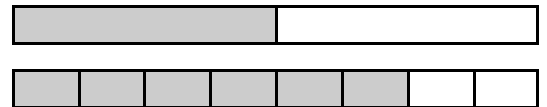
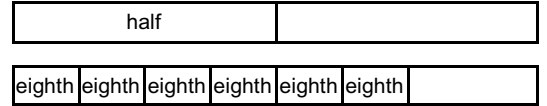
List the multiples of 2.

List the multiples of 8.

Find the least common multiple (LCM).

Compare the fractions.

Convert the fractions using the LCD.



2, 4, 6, 8
8, 16, 24, 32
LCM: 8
LCD: 8

$$\frac{1}{2} = \frac{4}{8} \qquad \frac{6}{8} = \frac{6}{8}$$

$$\frac{4}{8} < \frac{6}{8}$$

$$\frac{1}{2} < \frac{6}{8}$$

3. Continue the process using B, C, and D.

B Multiples of 6: 6, 12, 18, 24
Multiples of 3: 3, 6, 9, 12
LCM: 6 LCD: 6

$$\frac{5}{6} = \frac{5}{6} \quad \frac{2}{3} = \frac{4}{6}$$
$$\frac{5}{6} > \frac{4}{6}$$
$$\frac{5}{6} > \frac{2}{3}$$

C Multiples of 3: 3, 6, 9, 12
Multiples of 2: 2, 4, 6, 8
LCM: 6 LCD: 6

$$\frac{2}{3} = \frac{4}{6} \quad \frac{1}{2} = \frac{3}{6}$$
$$\frac{4}{6} > \frac{3}{6}$$
$$\frac{2}{3} > \frac{1}{2}$$

D Multiples of 4: 4, 8, 12, 16
Multiples of 3: 3, 6, 9, 12
LCM: 12 LCD: 12

$$\frac{1}{4} = \frac{3}{12} \quad \frac{1}{3} = \frac{4}{12}$$
$$\frac{3}{12} < \frac{4}{12}$$
$$\frac{1}{4} < \frac{1}{3}$$

4. Practice: *Comparing Fractions 3B*, 1 - 4

1 Multiples of 12: 12, 24, 36, 48
Multiples of 6: 6, 12, 18, 24
LCM: 12 LCD: 12

$$\frac{7}{12} = \frac{7}{12} \quad \frac{3}{6} = \frac{6}{12}$$
$$\frac{7}{12} > \frac{6}{12}$$
$$\frac{7}{12} > \frac{3}{6}$$

3 Multiples of 2: 2, 4, 6, 8, 10
Multiples of 5: 5, 10, 15, 20
LCM: 10 LCD: 10

$$\frac{1}{2} = \frac{5}{10} \quad \frac{3}{5} = \frac{6}{10}$$
$$\frac{5}{10} < \frac{6}{10}$$
$$\frac{1}{2} < \frac{3}{5}$$

2 Multiples of 4: 4, 8, 12, 16
Multiples of 8: 8, 16, 24, 32
LCM: 8 LCD: 8

$$\frac{3}{4} = \frac{6}{8} \quad \frac{7}{8} = \frac{7}{8}$$
$$\frac{6}{8} < \frac{7}{8}$$
$$\frac{3}{4} < \frac{7}{8}$$

4 Multiples of 6: 6, 12, 18, 24
Multiples of 4: 4, 8, 12, 16
LCM: 12 LCD: 12

$$\frac{4}{6} = \frac{8}{12} \quad \frac{2}{4} = \frac{6}{12}$$
$$\frac{8}{12} > \frac{6}{12}$$
$$\frac{4}{6} > \frac{2}{4}$$

Name _____

Compare Fractions 3A

A $\frac{1}{2} \bigcirc \frac{6}{8}$

Multiples of 2: _____

Multiples of 8: _____

LCM: _____ LCD: _____

$\frac{1}{2} = \underline{\hspace{1cm}}$ $\frac{6}{8} = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} \bigcirc \underline{\hspace{1cm}}$

$\frac{1}{2} \bigcirc \frac{6}{8}$

C $\frac{2}{3} \bigcirc \frac{1}{2}$

Multiples of 3: _____

Multiples of 2: _____

LCM: _____ LCD: _____

$\frac{2}{3} = \underline{\hspace{1cm}}$ $\frac{1}{2} = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} \bigcirc \underline{\hspace{1cm}}$

$\frac{2}{3} \bigcirc \frac{1}{2}$

B $\frac{5}{6} \bigcirc \frac{2}{3}$

Multiples of 6: _____

Multiples of 3: _____

LCM: _____ LCD: _____

$\frac{5}{6} = \underline{\hspace{1cm}}$ $\frac{2}{3} = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} \bigcirc \underline{\hspace{1cm}}$

$\frac{5}{6} \bigcirc \frac{2}{3}$

D $\frac{1}{4} \bigcirc \frac{1}{3}$

Multiples of 4: _____

Multiples of 3: _____

LCM: _____ LCD: _____

$\frac{1}{4} = \underline{\hspace{1cm}}$ $\frac{1}{3} = \underline{\hspace{1cm}}$

$\underline{\hspace{1cm}} \bigcirc \underline{\hspace{1cm}}$

$\frac{1}{4} \bigcirc \frac{1}{3}$

Name _____

Compare Fractions 3B

1 $\frac{7}{12} \bigcirc \frac{3}{6}$

Multiples of 12: _____

Multiples of 6: _____

LCM: _____ LCD: _____

$\frac{7}{12} =$ _____ $\frac{3}{6} =$ _____

_____ \bigcirc _____

$\frac{7}{12} \bigcirc \frac{3}{6}$

3 $\frac{1}{2} \bigcirc \frac{3}{5}$

Multiples of 2: _____

Multiples of 5: _____

LCM: _____ LCD: _____

$\frac{1}{2} =$ _____ $\frac{3}{5} =$ _____

_____ \bigcirc _____

$\frac{1}{2} \bigcirc \frac{3}{5}$

2 $\frac{3}{4} \bigcirc \frac{7}{8}$

Multiples of 4: _____

Multiples of 8: _____

LCM: _____ LCD: _____

$\frac{3}{4} =$ _____ $\frac{7}{8} =$ _____

_____ \bigcirc _____

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

4 $\frac{4}{6} \bigcirc \frac{2}{4}$

Multiples of 6: _____

Multiples of 4: _____

LCM: _____ LCD: _____

$\frac{4}{6} =$ _____ $\frac{2}{4} =$ _____

_____ \bigcirc _____

$\frac{4}{6} \bigcirc \frac{2}{4}$

Nombre _____

Comparar fracciones 3A

A $\frac{1}{2} \bigcirc \frac{6}{8}$

Múltiplos de 2: _____

Múltiplos de 8: _____

MMC: _____ MDC: _____

$\frac{1}{2} =$ _____ $\frac{6}{8} =$ _____

_____ \bigcirc _____

$\frac{1}{2} \bigcirc \frac{6}{8}$

C $\frac{2}{3} \bigcirc \frac{1}{2}$

Múltiplos de 3: _____

Múltiplos de 2: _____

MMC: _____ MDC: _____

$\frac{2}{3} =$ _____ $\frac{1}{2} =$ _____

_____ \bigcirc _____

$\frac{2}{3} \bigcirc \frac{1}{2}$

B $\frac{5}{6} \bigcirc \frac{2}{3}$

Múltiplos de 6: _____

Múltiplos de 3: _____

MMC: _____ MDC: _____

$\frac{5}{6} =$ _____ $\frac{2}{3} =$ _____

_____ \bigcirc _____

$\frac{5}{6} \bigcirc \frac{2}{3}$

D $\frac{1}{4} \bigcirc \frac{1}{3}$

Múltiplos de 4: _____

Múltiplos de 3: _____

MMC: _____ MDC: _____

$\frac{1}{4} =$ _____ $\frac{1}{3} =$ _____

_____ \bigcirc _____

$\frac{1}{4} \bigcirc \frac{1}{3}$

Nombre _____

Comparar fracciones 3B

1 $\frac{7}{12} \bigcirc \frac{3}{6}$

Múltiplos de 12: _____

Múltiplos de 6: _____

MMC: _____ MDC: _____

$\frac{7}{12} =$ _____ $\frac{3}{6} =$ _____

_____ \bigcirc _____

$\frac{7}{12} \bigcirc \frac{3}{6}$

3 $\frac{1}{2} \bigcirc \frac{3}{5}$

Múltiplos de 2: _____

Múltiplos de 5: _____

MMC: _____ MDC: _____

$\frac{1}{2} =$ _____ $\frac{3}{5} =$ _____

_____ \bigcirc _____

$\frac{1}{2} \bigcirc \frac{3}{5}$

2 $\frac{3}{4} \bigcirc \frac{7}{8}$

Múltiplos de 4: _____

Múltiplos de 8: _____

MMC: _____ MDC: _____

$\frac{3}{4} =$ _____ $\frac{7}{8} =$ _____

_____ \bigcirc _____

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

4 $\frac{4}{6} \bigcirc \frac{2}{4}$

Múltiplos de 6: _____

Múltiplos de 4: _____

MMC: _____ MDC: _____

$\frac{4}{6} =$ _____ $\frac{2}{4} =$ _____

_____ \bigcirc _____

$\frac{4}{6} \bigcirc \frac{2}{4}$