**NF3-6 Different Shapes, Same Fractions**

1. Draw a line to create 2 equal parts. Then shade $\frac{1}{2}$ of the whole.
   - a) ![Image](image1.png)
   - b) ![Image](image2.png)
   - c) ![Image](image3.png)
   - d) ![Image](image4.png)
   - e) ![Image](image5.png)

   **BONUS**

2. Draw a line to create 3 equal parts. Then shade $\frac{2}{3}$ of the whole.
   - a) ![Image](image6.png)
   - b) ![Image](image7.png)
   - c) ![Image](image8.png)
   - d) ![Image](image9.png)
   - e) ![Image](image10.png)

   **BONUS**

3. Draw a line to create 4 equal parts. Then shade $\frac{3}{4}$ of the whole.
   - a) ![Image](image11.png)
   - b) ![Image](image12.png)
   - c) ![Image](image13.png)
   - d) ![Image](image14.png)
   - e) ![Image](image15.png)

   **BONUS**
4. One half of a shape is shaded. Outline the whole shape.

a) 

b) 

c) 

d) 

e) 

f) 

g) 

h) 

5. One third of a shape is shaded. Outline the whole shape.

a) 

b) 

c) 

d) 

e) 

f) 

g) 

h) 

BONUS ► One fourth of a shape is shaded. Outline the whole shape.
Number and Operations—Fractions 3-7

NF3-7 Comparing Fractions (Introduction)

1. Shade the fraction of the strip.
   
   a) \[
   \frac{3}{4}
   \]
   
   b) \[
   \frac{2}{3}
   \]
   
   c) \[
   \frac{2}{5}
   \]
   
   d) \[
   \frac{7}{8}
   \]

2. Which strip has more shaded? Circle the greater fraction.
   
   a) \[
   \frac{2}{5}
   \]
   
   \[
   \frac{3}{5}
   \]
   
   b) \[
   \frac{3}{4}
   \]
   
   \[
   \frac{1}{4}
   \]
   
   c) \[
   \frac{5}{8}
   \]
   
   \[
   \frac{3}{8}
   \]
   
   d) \[
   \frac{1}{3}
   \]
   
   \[
   \frac{2}{3}
   \]

\[
\frac{7}{8} \text{ is greater than } \frac{3}{8} \text{ because more of the whole is shaded.}
\]

3. Shade the fractions of the strips. Then circle the greater fraction.
   
   a) \[
   \frac{3}{5}
   \]
   
   \[
   \frac{2}{5}
   \]
   
   b) \[
   \frac{3}{4}
   \]
   
   \[
   \frac{1}{4}
   \]
   
   c) \[
   \frac{5}{8}
   \]
   
   \[
   \frac{7}{8}
   \]
   
   d) \[
   \frac{3}{6}
   \]
   
   \[
   \frac{5}{6}
   \]
4. Shade the fractions of the strips. Then circle the smaller fraction.

- a) \[\frac{1}{3}\]  
- b) \[\frac{5}{6}\]  
- c) \[\frac{3}{7}\]  
- d) \[\frac{6}{7}\]

“5 is greater than 3” is written as \(5 > 3\). “3 is less than 5” is written as \(3 < 5\).

5. Circle the greater fraction. Then use the correct sign (\(>\) or \(<\)) to compare the fractions.

- a) \[\frac{2}{5}\] < \[\frac{3}{5}\]
- b) \[\frac{3}{4}\] > \[\frac{1}{4}\]
- c) \[\frac{5}{8}\] < \[\frac{3}{8}\]
- d) \[\frac{3}{6}\] < \[\frac{5}{6}\]

6. Nancy looked at the pictures and said that \(\frac{1}{3} > \frac{2}{3}\). Explain her mistake.
**NF3-8 Equal Parts and Models of Fractions**

1. Use the centimeter ruler to divide the line into equal parts. Mark with ticks on the line.
   a) 5 equal parts
   b) 4 equal parts
   c) 3 equal parts
   d) 8 equal parts

2. Use the inch ruler to divide the line into equal parts.
   a) 3 equal parts
   b) 2 equal parts

3. Use a ruler to join the marks and divide the box into equal parts.
   a) 5 equal parts
   b) 8 equal parts

4. Use a centimeter ruler to mark the box in centimeters. Then divide the box into equal parts.
   a) 3 equal parts
   b) 5 equal parts
   c) 2 equal parts
   d) 7 equal parts
5. Use a piece of paper to divide the rectangle into equal parts.
   a) 3 equal parts
   b) 5 equal parts

6. Use a ruler or a piece of paper to find what fraction of the rectangle is shaded.
   a) 
   b) 
   c) 
   d) 

7. Use the ruler to draw the rest of the whole shape. Shade the fraction named.
   a) \[
   \frac{3}{4}
   \]
   b) \[
   \frac{4}{5}
   \]
   c) \[
   \frac{2}{3}
   \]
   d) \[
   \frac{3}{6}
   \]
NF3-9 Fractions on a Number Line

You can also use number lines to show fractions.

\[
\begin{array}{c}
\text{of the strip is shaded.} \\
\text{of the number line from 0 to 1 is shaded.}
\end{array}
\]

1. Write what fraction of the strip is shaded. Then label the fraction on the number line.

   a)  
   
   b)  
   
   c)  
   
   d)  
   
   e)  
   
   f)  

2. Shade the fraction of the strip that shows the fraction on the number line.

   a)  
   
   b)  
   
   c)  
   
   d)  

Number and Operations—Fractions 3-9
You can label a number line with fractions.

There are 3 equal parts in the whole.

3. Count the number of parts in the whole. Then label all the fractions on the number line.

a)

b)

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

3.

BONUS Each inch on a six-inch ruler needs to be marked with fourths.

How many fourths will be marked on the entire ruler? _______

Mark them.
NF3-10 Fractions on a Number Line (Advanced)

1. The dot on the number line marks a fraction. Count the equal parts and label the dot.

   a) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \] 
   \[
   \begin{array}{c}
   \frac{3}{4}
   \end{array}
   \]

   b) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   c) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   d) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   e) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   f) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   g) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   h) 
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

2. Fold paper to mark and label the fractions on the number line.

   a) fourths
   \[
   \begin{array}{c}
   \text{0} \\
   \frac{1}{4} \\
   \frac{2}{4} \\
   \frac{3}{4} \\
   \text{1}
   \end{array}
   \]

   b) halves
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   c) thirds
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]

   d) eighths
   \[
   \begin{array}{c}
   \text{0} \\
   \text{1}
   \end{array}
   \]
3. Divide the number line from 0 to 1 into equal parts. Then mark the fraction.

   a) 3 equal parts and mark \( \frac{2}{3} \)
   
   b) 2 equal parts and mark \( \frac{1}{2} \)
   
   c) 4 equal parts and mark \( \frac{1}{4} \)
   
   d) 8 equal parts and mark \( \frac{5}{8} \)

4. Circle the larger fraction on the number line.

   a) 
   b) 
   c) 
   d) 

You can use number lines to compare fractions. \( \frac{3}{4} \) is farther to the right on the number line than \( \frac{1}{3} \), so \( \frac{3}{4} \) is greater than \( \frac{1}{3} \). You write \( \frac{3}{4} > \frac{1}{3} \).

5. Several fractions with different denominators have been marked on the number line.

   \[
   \begin{array}{cccc}
   0 & \frac{1}{3} & \frac{1}{2} & 1 \\
   \frac{3}{8} & \frac{3}{4} & \frac{5}{6} & 1 \\
   \end{array}
   \]

Write < (less than) or > (greater than) to compare fractions.

   a) \( \frac{1}{3} \) \( \square \) \( \frac{1}{2} \)
   b) \( \frac{5}{6} \) \( \square \) \( \frac{3}{8} \)
   c) \( \frac{3}{4} \) \( \square \) \( \frac{3}{8} \)
   d) \( \frac{1}{2} \) \( \square \) \( \frac{5}{6} \)