1. Show one half in a different way on each rectangle:

   a

   b

   c

2. Show how each shape can be divided into quarters:

   a

   b

   c

3. Color the fractions of each shape:

   a  two quarters  b  three quarters  c  one half  d  one quarter

   Octagon  Square  Heart  Triangle

4. Answer these sharing problems. Draw a picture to match:

   a  I have 4 candies and I have to share them with my brother. How many do we each get?

   b  There are 8 cookies to be shared among 4 people. How many does each person get?
Introducing fractions – modeling fractions

Fractions are written like this:

<table>
<thead>
<tr>
<th>1</th>
<th>The number on the top is the numerator and shows the number of parts being considered.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>The number on the bottom is the denominator and shows the number of parts in the whole.</td>
</tr>
</tbody>
</table>

5 Look at these fraction diagrams and label them.

a  1 out of 2

b

c

d

e

f

6 Share this chocolate bar among 4 kids:

a  Draw lines to show how you will break it.

b  How many pieces will each kid get?


c  Show this as a fraction.
A fraction is a part of a whole. This circle had been divided into 8 pieces and has 5 pieces shaded.

\[
\frac{5}{8} = \frac{5 \text{ shaded parts}}{8 \text{ parts altogether}}
\]

The top number is the numerator, the bottom number is the denominator.

1. Divide each shape into quarters. Shade one quarter:

   a
   b
   c
   d

2. Shade one third of each shape:

   a
   b
   c
   d

3. What fraction is shaded?

   a
   b
   c

   Fraction shaded

4. This is \(\frac{1}{3}\) of a shape.

   Draw the whole shape in the box.
5 Complete the table for each shape.

<table>
<thead>
<tr>
<th>Shape</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
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</table>

Fraction that is shaded: ___ ___ ___ ___ ___ ___
Fraction that is unshaded: ___ ___ ___ ___ ___ ___

This shape has 8 pieces. To show half, I have shaded 4 pieces.

6 How many different ways can you show a half?
Introducing fractions – comparing and ordering fractions

This fraction wall is just like your fraction strips laid out side by side.

<p>| | | | | | | | |</p>
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</table>

1 whole

halves

<table>
<thead>
<tr>
<th>1/2</th>
<th>1/2</th>
</tr>
</thead>
</table>

quarters

<table>
<thead>
<tr>
<th>1/4</th>
<th>1/4</th>
<th>1/4</th>
<th>1/4</th>
</tr>
</thead>
</table>

eighths

| 1/8 | 1/8 | 1/8 | 1/8 |

1 whole

1/2

1/4

1/8

Label the following fractions:

a

b

c

d

e What do you notice with the fractions shown in b and d?

_____________________________________________________________________

2 Use the fraction wall at the top of this page to decide which fraction is larger and circle it:

a \( \frac{1}{4} \) or \( \frac{3}{8} \)

b \( \frac{2}{8} \) or \( \frac{1}{2} \)

c \( \frac{3}{4} \) or \( \frac{4}{8} \)

d \( \frac{1}{2} \) or \( \frac{5}{8} \)

e \( \frac{5}{8} \) or \( \frac{3}{4} \)

f \( \frac{2}{4} \) or \( \frac{3}{8} \)

3 Put these fractions in order from smallest to largest:

a \( \frac{4}{8}, \frac{1}{8}, \frac{3}{4}, \frac{7}{8} \)

b \( \frac{7}{8}, \frac{1}{2}, \frac{1}{4}, \frac{5}{8} \)
Let us now look at placing fractions on number lines.

<table>
<thead>
<tr>
<th>Halves</th>
<th>0 0.5 1 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Halves</td>
<td>0 0.5 1 2</td>
</tr>
<tr>
<td>Quarters</td>
<td>0 0.25 0.5 0.75 1</td>
</tr>
<tr>
<td>Quarters</td>
<td>0 0.25 0.5 0.75 1</td>
</tr>
<tr>
<td>Eighths</td>
<td>0 0.125 0.25 0.375 0.5 0.625 0.75 0.875 1</td>
</tr>
<tr>
<td>Eighths</td>
<td>0 0.125 0.25 0.375 0.5 0.625 0.75 0.875 1</td>
</tr>
</tbody>
</table>

4 Label the missing fractions on these number lines:

4a 0 2/4 4/4

4b 0 2/8 4/8 6/8 8/8

4c What do you notice about 2/4 and 4/8?

_____________________________________________________________________

5 Label this number line with quarters above the line and eighths below the line:

6 Draw a line to match each of these fractions to the correct position on the number line. Use the number lines at the top of the page to help you.

7/8 3/4 1/4 3/8 1/1 1/2

0 0.5 1
1 Connect the fractions to their places on the number lines.

a

\[ \frac{1}{3} \quad \frac{1}{6} \]

b

\[ \frac{1}{2} \quad \frac{1}{4} \quad \frac{5}{8} \]

c

\[ \frac{1}{2} \quad \frac{3}{4} \]

d

\[ \frac{3}{8} \quad \frac{5}{8} \quad \frac{1}{4} \quad \frac{1}{2} \quad \frac{3}{4} \]