Equivalent fractions (2)

1. Shade the diagrams to help you complete the equivalent fractions. The first one has been done for you.

   a) \[
   \begin{array}{c|c}
   \frac{1}{3} & \frac{3}{6} \\
   \end{array}
   \]

   b) \[
   \begin{array}{c|c}
   \frac{1}{2} & \frac{5}{10} \\
   \end{array}
   \]

   c) \[
   \begin{array}{c|c}
   \frac{1}{4} & \frac{3}{12} \\
   \end{array}
   \]

2. Draw a diagram to show that \[\frac{3}{4} = \frac{6}{8}\]

3. Match the equivalent fractions.

   a) \[\frac{1}{4} \quad \frac{3}{21}\]
   b) \[\frac{4}{10} \quad \frac{2}{3}\]
   c) \[\frac{10}{15} \quad \frac{2}{5}\]
   d) \[\frac{1}{7} \quad \frac{3}{12}\]

4. Complete the equivalent fractions.

   a) \[\frac{1}{5} = \frac{2}{10}\]
   b) \[\frac{4}{5} = \frac{8}{10}\]
   c) \[\frac{3}{10} = \frac{6}{20}\]
   d) \[\frac{3}{10} = \frac{9}{30}\]
   e) \[\frac{6}{8} = \frac{3}{4}\]
   f) \[\frac{8}{12} = \frac{2}{3}\]
   g) \[\frac{8}{12} = \frac{2}{3}\]
   h) \[\frac{2}{5} = \frac{10}{25}\]
   i) \[\frac{1}{7} = \frac{4}{28}\]
5 a) Write the fractions in the correct place on the sorting diagram.

<table>
<thead>
<tr>
<th></th>
<th>equivalent to $\frac{1}{3}$</th>
<th>equivalent to $\frac{1}{4}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>odd denominator</td>
<td>$\frac{5}{15}$</td>
<td>$\frac{3}{9}$</td>
</tr>
<tr>
<td>even denominator</td>
<td>$\frac{8}{24}$</td>
<td>$\frac{4}{12}$</td>
</tr>
<tr>
<td></td>
<td>$\frac{5}{12}$</td>
<td>$\frac{6}{24}$</td>
</tr>
<tr>
<td></td>
<td>$\frac{4}{16}$</td>
<td></td>
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</tbody>
</table>

b) Are any of the boxes empty? Why do you think this is? Talk about your answer with a partner.

6 Find three ways to make the fractions equivalent. Various answers e.g.

a) \[
\begin{array}{ll}
\frac{2}{2} &= \frac{4}{4} \\
\frac{5}{5} &= \frac{10}{10} \\
\frac{7}{1} &= \frac{14}{2}
\end{array}
\]

b) \[
\begin{array}{ll}
\frac{1}{5} &= \frac{4}{20} \\
\frac{2}{1} &= \frac{4}{8} \\
\frac{1}{10} &= \frac{4}{40}
\end{array}
\]

c) \[
\begin{array}{ll}
\frac{2}{3} &= \frac{6}{9} \\
\frac{1}{3} &= \frac{3}{9} \\
\frac{3}{3} &= \frac{9}{9}
\end{array}
\]

7 Eva and Ron have a baguette each. The baguettes are the same size. Eva cuts her baguette into 8 equal pieces.

3 of my equal pieces are equal to 6 of Eva’s.

How many equal pieces has Ron cut his baguette into?

Eva

Ron

Ron has cut his baguette into $4$ equal pieces.