Equivalent fractions

1 Shade the shapes to show the equivalent fractions.
   a) [Diagram]
      \[ \frac{1}{4} = \frac{1}{12} \]
   b) [Diagram]
      \[ \frac{3}{4} = \frac{3}{12} \]
   c) [Diagram]
      \[ \frac{1}{6} = \frac{1}{12} \]
   d) [Diagram]
      \[ \frac{5}{6} = \frac{5}{12} \]

2 Draw two rectangles to show that \( \frac{1}{3} = \frac{4}{12} \)

3 a) Sort the fractions into the groups.
   Equivalent to \( \frac{1}{4} \)
   - \( \frac{5}{15} \)
   - \( \frac{2}{6} \)
   - \( \frac{3}{12} \)
   - \( \frac{6}{24} \)
   - \( \frac{8}{24} \)
   - \( \frac{5}{20} \)
   - \( \frac{4}{12} \)
   - \( \frac{2}{8} \)
   Equivalent to \( \frac{1}{3} \)
   - \( \frac{1}{3} \)
   - \( \frac{2}{6} \)
   - \( \frac{3}{12} \)
   - \( \frac{6}{24} \)
   - \( \frac{8}{24} \)
   - \( \frac{5}{20} \)
   - \( \frac{4}{12} \)
   - \( \frac{2}{8} \)
   b) Write one more fraction in each group.

4 Complete the equivalent fractions.
   a) \( \frac{1}{7} = \frac{1}{14} \)
   b) \( \frac{5}{7} = \frac{5}{14} \)
   c) \( \frac{7}{8} = \frac{7}{14} \)
   d) \( \frac{3}{4} = \frac{6}{12} \)
   e) \( \frac{3}{4} = \frac{12}{16} \)
   f) \( \frac{3}{4} = \frac{12}{16} \)
   g) \( \frac{2}{5} = \frac{10}{25} \)
   h) \( \frac{2}{5} = \frac{10}{25} \)
   i) \( \frac{2}{7} = \frac{10}{35} \)
   j) Describe the pattern in part g), h) and i) to a partner.
5 Find three ways to make the fractions equivalent.

a) \( \frac{1}{7} = \frac{7}{14} \)

b) \( \frac{7}{14} = \frac{14}{28} \)

c) \( \frac{7}{14} = \frac{14}{28} \)

6 Ron is finding equivalent fractions to \( \frac{1}{4} \)

\( \frac{1}{4} \) is equivalent to \( \frac{5}{8} \) and \( \frac{9}{12} \)

Do you agree with Ron? ____________

Draw a diagram to support your answer.

Compare answers with a partner.

7 Here are some equivalent fractions.

Find the values of A, B and C.

\[
\begin{array}{c}
A & B & C \\
\frac{3}{A} & \frac{3}{B} & \frac{2}{C} \\
9 & 18 & 90 \\
\end{array}
\]

\( A = \) \( B = \) \( C = \)

8 Here are three fraction cards.

All the fractions are equivalent.

\[
\begin{array}{c}
\frac{3}{A} & \frac{8}{B} & \frac{12}{C} \\
3 & 14 & \frac{12}{C} \\
\end{array}
\]

\( A + B = 13 \)

Work out the value of C.

\( C = \)

9 \( \frac{1}{5} = \frac{3}{1 + \circ} \)

Find the value of \( \circ \)

\( \circ = \)