Equivalent fractions

1. Shade the shapes to show the equivalent fractions.
   a) \[ \frac{1}{4} = \frac{3}{12} \]
   b) \[ \frac{3}{4} = \frac{9}{12} \]
   c) \[ \frac{1}{6} = \frac{2}{12} \]
   d) \[ \frac{5}{6} = \frac{10}{12} \]

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

3. a) Sort the fractions into the groups.
   $$\frac{3}{12}, \frac{5}{20}, \frac{6}{24}, \frac{2}{8}$$
   $$\frac{5}{15}, \frac{2}{6}, \frac{3}{12}, \frac{6}{24}, \frac{8}{24}, \frac{5}{20}, \frac{4}{12}, \frac{2}{8}$$

   b) Write one more fraction in each group.

4. Complete the equivalent fractions.
   a) \[ \frac{1}{7} = \frac{2}{14} \]
   b) \[ \frac{5}{7} = \frac{10}{14} \]
   c) \[ \frac{7}{8} = \frac{14}{16} \]
   d) \[ \frac{3}{4} = \frac{6}{8} \]
   e) \[ \frac{3}{4} = \frac{12}{16} \]
   f) \[ \frac{3}{4} = \frac{9}{12} \]
   g) \[ \frac{2}{3} = \frac{10}{15} \]
   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) \( \frac{1}{2} = \frac{7}{14} \)  

\[
\begin{align*}
\frac{1}{2} &= \frac{7}{14} \\
\frac{1}{8} &= \frac{7}{56} \\
\frac{1}{100} &= \frac{7}{700}
\end{align*}
\]

b) \( \frac{7}{3} = \frac{14}{14} \)  

c) \( \frac{11}{7} = \frac{22}{14} \)  

\[
\begin{align*}
\frac{7}{3} &= \frac{14}{14} \\
\frac{5}{7} &= \frac{10}{14} \\
\frac{21}{7} &= \frac{42}{14}
\end{align*}
\]

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

\[
\frac{1}{4} \text{ is equivalent to } \frac{5}{8} \text{ and } \frac{9}{12}
\]

Do you agree with Ron? _No_  
Draw a diagram to support your answer.

7. Here are some equivalent fractions.

Find the values of A, B, and C.

\[
\begin{align*}
A &= 1 \\
B &= 27 \\
C &= 10
\end{align*}
\]

8. Here are three fraction cards.

All the fractions are equivalent.

\[
\begin{align*}
\frac{3}{A} &= \frac{B}{14} = \frac{12}{C}
\end{align*}
\]

\[
\begin{align*}
A + B &= 13 \\
Work \ out \ the \ value \ of \ C.
\end{align*}
\]

\[
C = 28
\]

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

Find the value of \( \bullet \)

\[
\bullet = 14
\]

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