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Date: 

Each rectangle represents 1.

1. The shaded fractions have been decomposed into smaller units. Express the equivalent fractions in a number sentence using multiplication. The first one has been done for you.

   a.  \[
   \frac{2}{3} = \frac{2 \times 2}{3 \times 2} = \frac{4}{6}
   \]

   b.  \[
   \frac{3}{4} = \frac{3 \times 3}{4 \times 3} = \frac{9}{12}
   \]

   c.  \[
   \frac{4}{5} = \frac{4 \times 2}{5 \times 2} = \frac{8}{10}
   \]

   d.  \[
   \frac{5}{6} = \frac{5 \times 2}{6 \times 2} = \frac{10}{12}
   \]

2. Decompose the shaded fractions into smaller units, as given below. Express the equivalent fractions in a number sentence using multiplication.

   a. Decompose into tenths.
   \[
   \frac{3}{5} = \frac{3 \times 2}{5 \times 2} = \frac{6}{10}
   \]

   b. Decompose into fifteenthths.
   \[
   \frac{3}{5} = \frac{3 \times 3}{5 \times 3} = \frac{9}{15}
   \]
3. Draw area models to prove that the following number sentences are true.

   a. \( \frac{2}{5} = \frac{4}{10} \)

   b. \( \frac{2}{3} = \frac{8}{12} \)

   c. \( \frac{3}{6} = \frac{6}{12} \)

   d. \( \frac{4}{6} = \frac{8}{12} \)

4. Use multiplication to find an equivalent fraction for each fraction below.

   a. \( \frac{3}{4} = \frac{3 \times 2}{4 \times 2} = \frac{6}{8} \)

   b. \( \frac{4}{5} = \frac{4 \times 3}{5 \times 3} = \frac{12}{15} \)

   c. \( \frac{7}{6} = \frac{7 \times 2}{6 \times 2} = \frac{14}{12} \)

   d. \( \frac{12}{7} = \frac{12 \times 2}{7 \times 2} = \frac{24}{14} \)

5. Determine which of the following are true number sentences. Correct those that are false by changing the right-hand side of the number sentence.

   a. \( \frac{4}{3} = \frac{9}{9} \)
      \( \text{false} \)

   b. \( \frac{5}{4} = \frac{10}{8} \)
      \( \text{true} \)

   c. \( \frac{4}{5} = \frac{12}{10} \)
      \( \text{false} \)

   d. \( \frac{4}{6} = \frac{12}{18} \)
      \( \text{true} \)