Determining equivalent fractions using models or money

$\frac{3}{6}$ of the figures are triangles. Notice the figures on the right. The six figures can be divided into 2 equal groups.

By dividing the figures into two equal groups, the triangles can also be referred to as $\frac{1}{2}$ of the group.

Fractions that refer to the same portion of a group of items or the same part of a whole are called **equivalent fractions**.

① $\frac{1}{2} = \frac{2}{\square}$ of the figures are circles.

② $\frac{3}{4} = \frac{\square}{8}$ of the figures are circles.

③ $\frac{\square}{\square} = \frac{2}{6}$ of the figures are circles.

Write the fraction that represents the shaded portion of each rectangle.

④ $= \frac{1}{2}$

⑤ $= \frac{\ }{\ }$

⑥ $= \frac{\ }{\ }$

Each of the rectangles is the same size and even though they are divided differently, the portion that is shaded is equal to one-half for each one.

$\frac{3}{6} = \frac{1}{2}$ This can be verified. What is 6 divided into 2 equal parts? $6 \div 2 = 3$. There should be 3 sixths in each of the parts.

⑦ $\frac{4}{12} = \frac{1}{3}$ To check, what is 12 divided into 3 equal parts? $12 \div 3 = 4$. There should be 4 twelfths in each of the parts.

⑧ $\frac{2}{8} = \frac{1}{4}$ To check, what is 8 divided into 4 equal parts? $8 \div 4 = 2$. There should be 2 eighths in each of the parts.

Since 4 quarters equal one dollar, if a dollar is divided into 4 equal parts, each part will be equal to 25¢.

$= \frac{25}{100} = \frac{1}{4}$ of a dollar

Fill in the missing numbers for each problem.

⑨ 1 nickel = $\frac{5}{100} = \frac{1}{20}$ of a dollar

⑩ 1 penny = $\frac{1}{100}$ of a dollar

⑪ 2 nickels = $\frac{10}{100} = \frac{2}{20}$ of a dollar

⑫ 2 dimes = $\frac{20}{100} = \frac{2}{10}$ of a dollar

⑬ 3 nickels = $\frac{\ }{\ } = \frac{\ }{\ }$ of a dollar

⑭ 2 quarters = $\frac{\ }{\ } = \frac{\ }{\ }$ of a dollar

⑮ 5 dimes = $\frac{\ }{\ } = \frac{\ }{\ }$ of a dollar

⑯ 14 pennies = $\frac{\ }{\ }$ of a dollar

⑰ 3 quarters = $\frac{\ }{\ } = \frac{\ }{\ }$ of a dollar

⑱ 17 nickels = $\frac{\ }{\ } = \frac{\ }{\ }$ of a dollar