

Determining equivalent fractions using models or money

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

$\triangle \bigcirc$ By dividing the figures into two equal groups, the triangles

$\triangle \square$ 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 $\frac{1}{2} = \frac{2}{4}$
of the figures are circles.

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

③ $\frac{1}{6} = \frac{2}{12}$
of the figures are circles.

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

④ $= \frac{1}{2}$

⑤ $= \frac{3}{6}$

⑥ $= \frac{4}{8}$

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¢.



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

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 = _____ of a dollar	⑭ 2 quarters = _____ of a dollar
⑮ 5 dimes = _____ of a dollar	⑯ 14 pennies = _____ of a dollar
⑰ 3 quarters = _____ of a dollar	⑱ 17 nickels = _____ of a dollar