

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

②  $\frac{3}{4} = \frac{6}{8}$   
of the figures are circles.

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

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.

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

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

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

⑤ =  $\frac{1}{2}$

⑥ =  $\frac{3}{6}$

⑦ =  $\frac{6}{12}$

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

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

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.

⑭  $\frac{4}{12} = \frac{1}{3}$   
To check, what is 12 divided into 3 equal parts?  $12 \div 3 = 4$ . There should be 4 twelfths in each of the parts.

⑬ 3 nickels =  $\frac{15}{100} = \frac{3}{20}$  of a dollar

⑮ 2 quarters =  $\frac{50}{100} = \frac{1}{2}$  of a dollar

⑯  $\frac{2}{8} = \frac{1}{4}$   
To check, what is 8 divided into 4 equal parts?  $8 \div 4 = 2$ . There should be 2 eighths in each of the parts.

⑰ 5 dimes =  $\frac{50}{100} = \frac{1}{2}$  of a dollar

⑲ 14 pennies =  $\frac{14}{100} = \frac{7}{50}$  of a dollar

⑳ 3 quarters =  $\frac{75}{100} = \frac{3}{4}$  of a dollar

㉑ 17 nickels =  $\frac{85}{100} = \frac{17}{20}$  of a dollar