

# Concept: Equivalent Fractions

Name: \_\_\_\_\_

## COMPUTER COMPONENT

**Instructions:** In  follow the **Content Menu** path:

**Fractions > Equivalent Fractions**



Work through all Sub Lessons of the following Lessons **in order**:

- *Introduction*
- *Pattern Blocks*
- *Fraction Strips*
- *The Clock*
- *On a square grid*
- *On a dot grid*
- *Slicing*
- *An explanation with sets*
- *Equivalent Fractions on a Number Line*
- *Comparison of Fractions*
- *Equivalent Fractions in a Multiplication Table*
- *One*
- *Equivalent Fractions ... The Pattern*
- *Simplifying Fractions to Simplest Form*
- *Memory Game*
- *A Challenge...Think About It*



As you work through the computer exercises, you will be prompted to make notes in your notebook/math journal.

## NOTES

1. Draw two different examples of **equivalent** fractions.

For instance,



$$\frac{1}{2} = \frac{2}{4}$$

Example 1:

\_\_\_\_\_ = \_\_\_\_\_

Example 2:

\_\_\_\_\_ = \_\_\_\_\_



**REPEATED DIVISIONS**

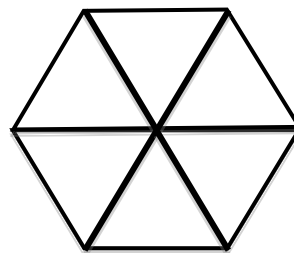
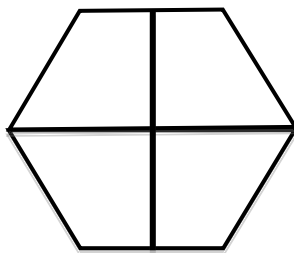
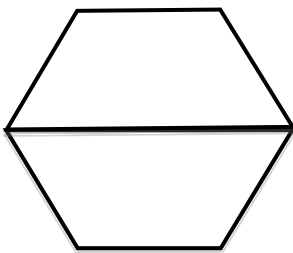
$$\begin{array}{r} 18 \\ \hline 48 \end{array}$$

**DIVIDING BY THE GREATEST COMMON FACTOR**

$$\begin{array}{r} 18 \\ \hline 48 \end{array}$$

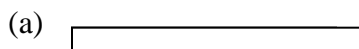
**OFF COMPUTER EXERCISES**

1. Shade the fraction equivalent to one half on each of the hexagons.

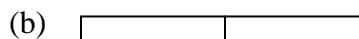


$$\frac{1}{2} = \quad \text{---} = \quad \text{---}$$

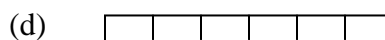
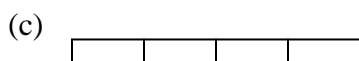
2. Shade in the fraction equivalent to one half on each of the strips.



represents one



represents  $\frac{1}{2}$



represents  $\frac{1}{4}$ 

 represents  $\frac{3}{4}$ 

 (e) 

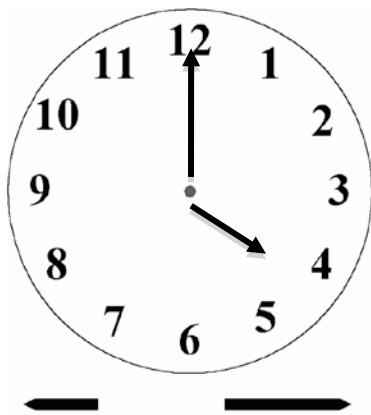
 (f) 

 represents  $\frac{1}{8}$ 

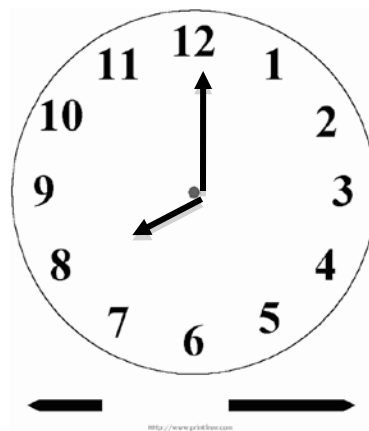
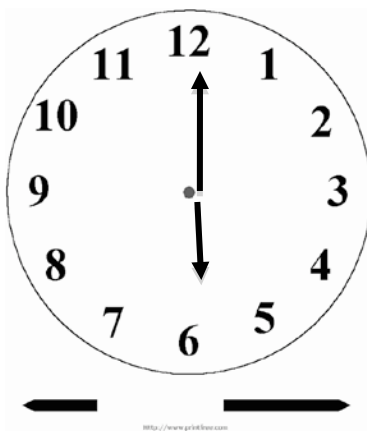
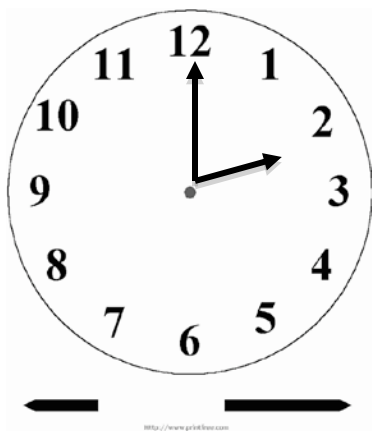
 represents  $\frac{3}{10}$ 

3. When the hour hand moves from 12 to 4, \_\_\_\_\_ hours have gone by.

 This is  $\frac{4}{12}$  of the path around the clock.

 We may also say that the hour hand has only traveled  $\frac{1}{3}$  of the way around the clock.


4. Simplify the following fractions.



$$\frac{2}{12} = \frac{\quad}{\quad}$$

$$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$

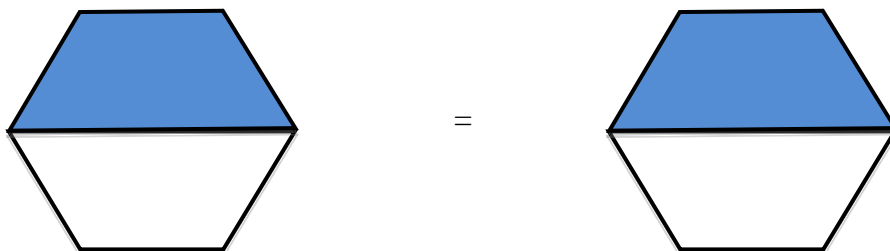
$$\frac{\quad}{\quad} = \frac{\quad}{\quad}$$

 5. Use the *Slicing* strategy to illustrate how:

(a)  $\frac{2}{4} = \frac{\quad}{12}$



(b)  $\frac{1}{2} = \frac{\quad}{6}$



6. Use the number lines from your **NOTES** to help you, place a  $<$  or a  $>$  between each set of fractions.

(a)  $\frac{3}{4}$     $\frac{4}{6}$

(b)  $\frac{5}{6}$     $\frac{7}{8}$

(c)  $\frac{3}{8}$     $\frac{2}{4}$

(d)  $\frac{5}{8}$     $\frac{2}{3}$

7. Fill in the blanks:

To find an equivalent fraction, we can \_\_\_\_\_ or divide the numerator and \_\_\_\_\_ by the **same** number.

8. Express each of the fractions in higher terms as indicated.

(a)  $\frac{3}{4} = \frac{\quad}{8}$

(b)  $\frac{5}{8} = \frac{\quad}{24}$

(c)  $\frac{4}{5} = \frac{\quad}{15}$

(d)  $\frac{7}{50} = \frac{\quad}{100}$

9. Express each of the fractions in lowest terms.

(a)  $\frac{6}{8} = \frac{\quad}{\quad}$

(b)  $\frac{5}{20} = \frac{\quad}{\quad}$

(c)  $\frac{27}{54} = \frac{\quad}{\quad}$

(d)  $\frac{48}{72} = \frac{\quad}{\quad}$

10. Write two fractions that are equivalent to the following.

(a)  $\frac{4}{3} =$

(b)  $\frac{2}{3} =$

(c)  $\frac{3}{5} =$

(d)  $1 =$

11. Find the equivalent fractions.

*Example:*  $\frac{1 \times 4}{3 \times 4} = \frac{4}{12}$

(a)  $\frac{2}{3} = \frac{\quad}{9}$

(b)  $\frac{2}{3} = \frac{\quad}{12}$

(c)  $\frac{3}{7} = \frac{\quad}{14}$

(d)  $\frac{8}{12} = \frac{\quad}{3}$

(e)  $\frac{2}{4} = \frac{1}{\quad}$

(f)  $\frac{5}{20} = \frac{\quad}{4}$