

Identify Multiples

The first five **multiples** of 2 are 2, 4, 6, 8, and 10.
Each multiple is the product of 2 and a natural number.

$$\begin{array}{lll} 2 \times 1 = 2 & 2 \times 2 = 4 & 2 \times 3 = 6 \\ 2 \times 4 = 8 & 2 \times 5 = 10 & \end{array}$$

Natural numbers are 1, 2, 3, and so on.

- What are the first three multiples of each of the following numbers?
 - 3
 - 4
 - 5
 - 8
 - 12
 - 10
- Which of the following numbers is not a multiple of 6?
6 48 18 40 24

Write Fractions

$\frac{3}{4}$ is a fraction, sometimes called a **proper fraction**.
Its numerator is less than its denominator.



$\frac{5}{3}$ is an **improper fraction**.
Its numerator is greater than its denominator.



$1\frac{2}{3}$ is a **mixed number**.
It is made up of a whole number and a fraction.



$$\frac{5}{3} = 1\frac{2}{3}$$

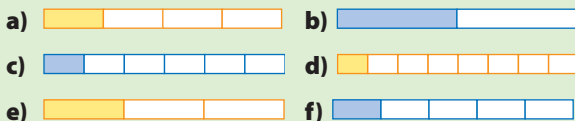
$$\begin{aligned} \frac{5}{3} &= 5 \div 3 \\ &= 1, \text{ with } 2 \text{ of } 3 \text{ parts left over} \\ &= 1\frac{2}{3} \end{aligned}$$

- Write an improper fraction and a mixed number for each diagram.
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- Draw a diagram to represent each of the following.
 - $2\frac{1}{2}$
 - $\frac{1}{4}$
 - $\frac{8}{5}$
 - $1\frac{3}{4}$
- Identify each item in #4 as a proper fraction, an improper fraction, or a mixed number.

Identify and Order Unit Fractions

Unit fractions have a numerator of 1. Some examples of unit fractions are $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{5}$.

6. Identify the unit fraction shown by each fraction strip.



7. a) List the unit fractions in #6 in order from least to greatest.

b) Copy the following statement about unit fractions. Fill in the blanks with *larger* or *smaller*:

The ■ the denominator, the ■ the value of the unit fraction.

Equivalent Fractions

Equivalent fractions represent the same part of the whole or group. $\frac{4}{8}$ and $\frac{1}{2}$ are equivalent fractions.

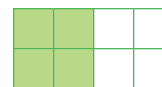
An equivalent fraction is in lowest terms when the numerator and denominator have no common factors other than 1.

$$\frac{8}{12} = \frac{2}{3} \quad \frac{2}{3} \text{ is in lowest terms.}$$

$\begin{array}{c} \div 4 \\ \curvearrowright \\ \frac{8}{12} = \frac{2}{3} \\ \curvearrowleft \\ \div 4 \end{array}$

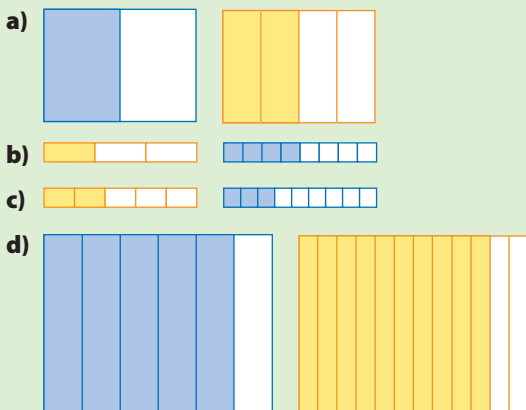


$$\frac{1}{2}$$

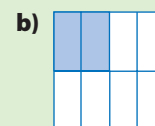


$$\frac{4}{8}$$

8. Name the fractions. Then identify which pairs are equivalent.



9. Name the fraction shaded in each diagram. Draw a diagram to show an equivalent fraction for each. Then write the equivalent fraction.



10. Which of these fractions are *not* in lowest terms? How do you know?

- a) $\frac{2}{4}$ b) $\frac{1}{4}$ c) $\frac{3}{8}$ d) $\frac{2}{10}$
 e) $\frac{3}{15}$ f) $\frac{9}{16}$ g) $\frac{6}{9}$ h) $\frac{14}{18}$