

# Greater Than One

## Working with Improper Fractions

An *improper fraction* always has a denominator smaller than or equal to the numerator. An improper fraction always indicates a value equal to or greater than one. The examples below are improper fractions.

$$\frac{3}{2} \quad \frac{9}{4} \quad \frac{6}{5} \quad \frac{9}{9} \quad \frac{11}{8}$$

**Directions:** Read the Facts and Reminders page for this unit. Circle the improper fraction in each pair below.

1.  $\frac{4}{3}$        $\frac{1}{4}$

2.  $\frac{2}{8}$        $\frac{12}{11}$

3.  $\frac{6}{5}$        $\frac{1}{5}$

4.  $\frac{9}{4}$        $\frac{1}{7}$

5.  $\frac{7}{7}$        $\frac{1}{2}$

6.  $\frac{7}{3}$        $\frac{7}{8}$

7.  $\frac{4}{5}$        $\frac{6}{2}$

8.  $\frac{8}{2}$        $\frac{5}{9}$

9.  $\frac{10}{4}$        $\frac{3}{5}$

**Directions:** Study the Facts and Reminders page for this unit. Convert each of these improper fractions to a whole number. (*Remember:* Divide the denominator into the numerator to convert an improper fraction to a whole number.)

10.  $\frac{8}{8} =$

11.  $\frac{15}{5} =$

12.  $\frac{14}{7} =$

13.  $\frac{35}{5} =$

14.  $\frac{6}{1} =$

15.  $\frac{8}{2} =$

16.  $\frac{3}{1} =$

17.  $\frac{25}{5} =$

18.  $\frac{22}{11} =$

**Directions:** Circle the fraction with the highest value in each pair of improper fractions below.

19.  $\frac{5}{5}$        $\frac{10}{5}$

20.  $\frac{3}{3}$        $\frac{9}{3}$

21.  $\frac{8}{2}$        $\frac{9}{3}$

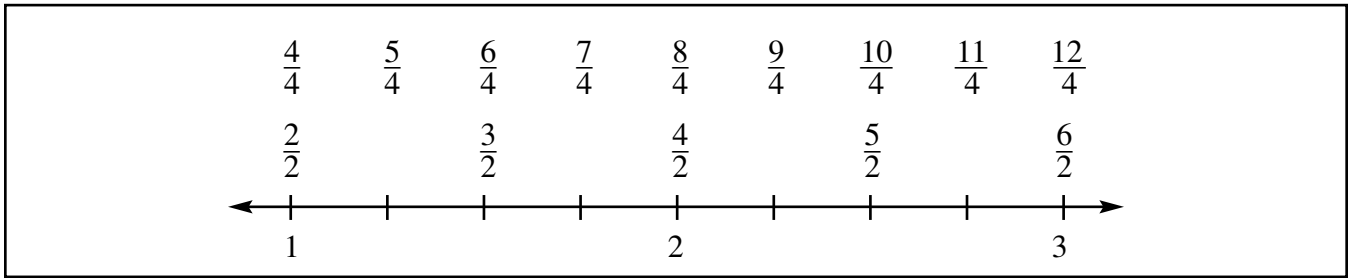
22.  $\frac{5}{1}$        $\frac{4}{1}$

23.  $\frac{6}{2}$        $\frac{12}{3}$

24.  $\frac{8}{4}$        $\frac{8}{2}$

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## Comparing Improper Fractions



**Directions:** Study the number line shown above. Circle the largest fraction in each pair listed below. Write an equal sign (=) if the fractions are equal to each other.

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

2.  $\frac{4}{2}$        $\frac{8}{4}$

3.  $\frac{6}{2}$        $\frac{6}{4}$

4.  $\frac{7}{4}$        $\frac{5}{2}$

5.  $\frac{9}{4}$        $\frac{6}{2}$

6.  $\frac{11}{4}$        $\frac{3}{2}$

7.  $\frac{8}{4}$        $\frac{6}{2}$

8.  $\frac{5}{2}$        $\frac{10}{4}$

9.  $\frac{12}{4}$        $\frac{5}{2}$

10.  $\frac{6}{2}$        $\frac{12}{4}$

11.  $\frac{3}{2}$        $\frac{6}{4}$

12.  $\frac{11}{4}$        $\frac{5}{2}$

**Directions:** Change each improper fraction to a mixed number. Then illustrate each of the fractions as pies or pizzas. The first one is done for you.

13.  $\frac{5}{4} = 1 \frac{1}{4}$



14.  $\frac{3}{2} =$

15.  $\frac{7}{3} =$

16.  $\frac{8}{3} =$

17.  $\frac{9}{4} =$

18.  $\frac{7}{5} =$

19.  $\frac{7}{4} =$

20.  $\frac{5}{2} =$

21.  $\frac{12}{8} =$

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## Changing Improper Fractions to Mixed Numbers

An *improper fraction* always equals either a whole number or a mixed number. To convert an improper fraction into a whole number or mixed number, divide the denominator into the numerator. Write the quotient as a whole number and the remainder, if there is one, as a fraction.

$$\frac{7}{4} = \begin{array}{r} 1 \text{ R } 3 \\ 4 \overline{)7} \end{array} = 1 \frac{3}{4}$$

**Directions:** Study the Facts and Reminders page for this unit. Change each of these improper fractions to a mixed number.

1.  $\frac{9}{4} =$

2.  $\frac{9}{2} =$

3.  $\frac{10}{3} =$

4.  $\frac{8}{7} =$

5.  $\frac{12}{5} =$

6.  $\frac{13}{4} =$

7.  $\frac{10}{9} =$

8.  $\frac{4}{3} =$

9.  $\frac{7}{6} =$

10.  $\frac{14}{5} =$

11.  $\frac{7}{2} =$

12.  $\frac{15}{4} =$

13.  $\frac{19}{5} =$

14.  $\frac{9}{7} =$

15.  $\frac{15}{7} =$

Sometimes the fraction part of a mixed number can be simplified or reduced, too. For example,  $\frac{6}{4} = 1 \frac{2}{4} = 1 \frac{1}{2}$  (The  $\frac{2}{4}$  can be simplified to  $\frac{1}{2}$ .)

**Directions:** Change these improper fractions to a mixed number. Simplify or reduce the fraction to lowest terms. The first one is done for you.

16.  $\frac{8}{6} = 1 \frac{2}{6} = 1 \frac{1}{3}$

17.  $\frac{9}{6} =$

18.  $\frac{10}{4} =$

19.  $\frac{12}{8} =$

20.  $\frac{14}{4} =$

21.  $\frac{10}{8} =$

22.  $\frac{14}{10} =$

23.  $\frac{12}{9} =$

24.  $\frac{10}{6} =$

25.  $\frac{15}{10} =$