

## Mixed Fractions

A mixed fraction is an alternate way to write an improper fraction. Since an improper fraction represents a number larger than 1, you can write it as a **mix** of both a whole number and a proper fraction.

The following are all examples of mixed fractions:

$$1\frac{1}{3} \quad 13\frac{7}{9} \quad 6\frac{168}{240} \quad -4\frac{4}{5}$$

A mixed fraction (like an improper fraction) *always* represents a number that is one or larger.

### Example 1

Identify each of the following numbers as being a proper, improper, or mixed fraction.

a)  $-7\frac{1}{7}$       b)  $\frac{4}{11}$       c)  $\frac{8}{7}$       d)  $-\frac{13}{14}$       e)  $\frac{20}{20}$       f)  $24\frac{5}{8}$

mixed      proper      improper      proper      improper      mixed

## Converting Mixed Fractions to Improper Fractions (and back)

When working with fractions, it is much easier to add, subtract, multiply, and divide *improper fractions* (as opposed to mixed fractions).

People have an easier time understanding the amount represented by a *mixed fraction* (as opposed to an improper fraction). (ie.  $2\frac{1}{2}$  is easier to understand than  $\frac{5}{2}$ ).

Because of this, you need to be able to write an improper fraction as a mixed fraction, and also to write a mixed fraction as an improper fraction.