

To convert a mixed fraction to an improper fraction:*

1. Multiply the denominator and the whole number.
2. Add the numerator to the result
3. Place this number over the original denominator.

*Note: A negative sign is ignored during these conversions, and simply placed in front of the new improper fraction.

Example 2

Convert the following mixed fractions to improper fractions.

a) $3\frac{2}{5}$

$$\frac{17}{5}$$

b) $-5\frac{4}{7}$

$$-\frac{39}{7}$$

c) $3\frac{1}{9}$

$$\frac{28}{9}$$

d) $2\frac{8}{16}$

$$\frac{40}{16}$$

To convert an improper fraction to a mixed fraction:

1. Divide the numerator by the denominator to determine how many times the denominator goes into the numerator (whole number).
2. Write the whole number.
3. Write any remainder over the original denominator.*

*Note: negative improper fractions give negative mixed fractions.

Example 3

Convert the following improper fractions to mixed fractions.

a) $\frac{9}{7}$

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

b) $\frac{32}{5}$

$$6\frac{2}{5}$$

c) $-\frac{67}{8}$

$$-8\frac{3}{8}$$

c) $-\frac{125}{23}$

$$-5\frac{10}{23}$$