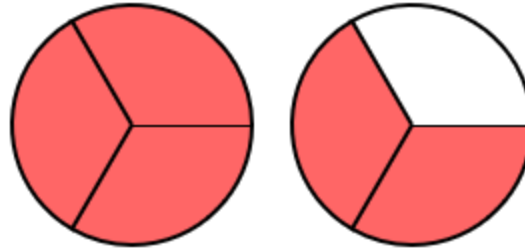


Fraction Form to Mixed Form

Introducing:

- fraction form
- mixed form
- improper
- $\frac{a}{b}$ form, $b \neq 0$



FRACTION FORM

$$\frac{5}{3}$$

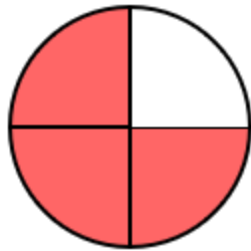
TO

=

WHOLE OR MIXED FORM

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

Fraction Form to Mixed Form 1

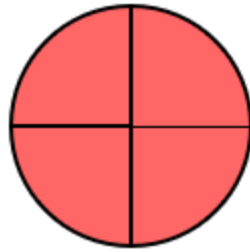


FRACTION FORM

$$\frac{3}{4}$$

This picture shows the fraction $\frac{3}{4}$. The circle is divided into 4 equal parts and 3 of the parts are selected.

Fraction Form to Mixed Form 2



FRACTION FORM

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

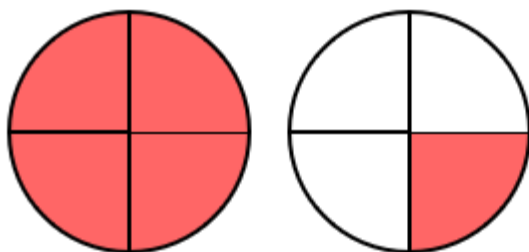
TO

WHOLE OR MIXED FORM

$$= 1$$

Increasing the numerator by one gives the fraction $\frac{4}{4}$. The picture shows that the numerator and denominator are the same. All parts of the circle are selected. This gives us a whole number of 1 since the complete unit is selected. You can think of the bar between the numerator and the denominator as a division bar. So 4 divided by 4 equals 1.

Fraction Form to Mixed Form 3



FRACTION FORM

$$\frac{5}{4}$$

TO

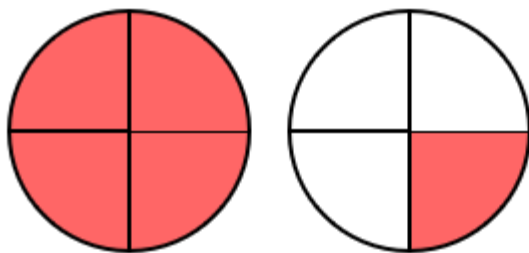
=

WHOLE OR MIXED FORM

$$1 \frac{1}{4}$$

Increasing the numerator again by one gives the fraction $\frac{5}{4}$. The picture shows that the numerator is larger than the denominator. Some texts call a fraction such as this *improper*, where the numerator is equal to or larger than the denominator.

Fraction Form to Mixed Form 4



FRACTION FORM

$$\frac{5}{4}$$

TO

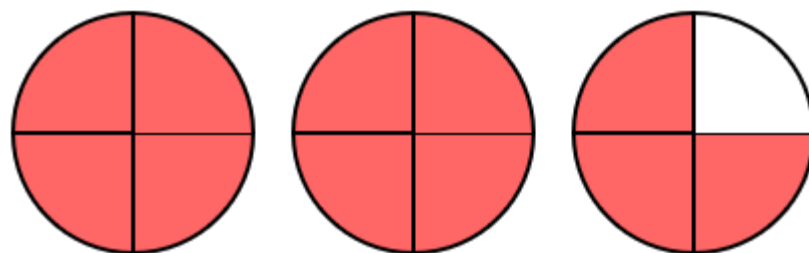
WHOLE OR MIXED FORM

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

You can see by the picture that one complete unit and $\frac{1}{4}$ unit are selected. So the fraction $\frac{5}{4}$ can be written as $1\frac{1}{4}$. $\frac{5}{4}$ is the *fraction* form or *improper* form of the number. A fraction such as $1\frac{1}{4}$ that has a whole number part and a fraction part is known as a *mixed number*.

The fraction form can also be called the $\frac{a}{b}$ form, providing that you specify that b is not equal to zero.

Fraction Form to Mixed Form 5



FRACTION FORM

$$\frac{11}{4}$$

TO

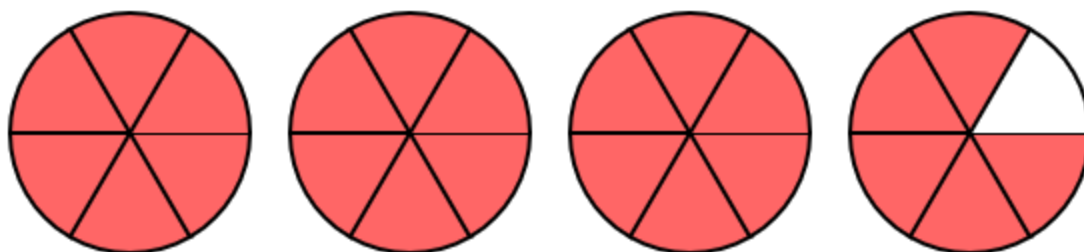
=

WHOLE OR MIXED FORM

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

This picture shows how $\frac{11}{4}$ makes two complete units and $\frac{3}{4}$ of another unit . You can see from the picture that we have $\frac{4}{4} + \frac{4}{4} + \frac{3}{4}$ or $1+1+\frac{3}{4}$ or $2 \frac{3}{4}$.

Fraction Form to Mixed Form 6



FRACTION FORM

$$\frac{23}{6}$$

TO

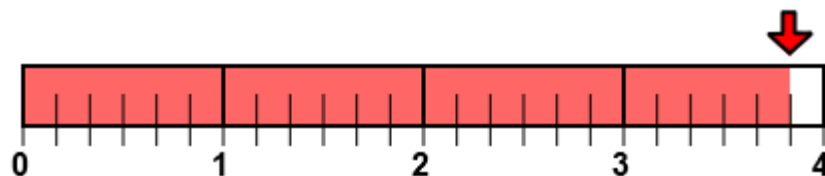
WHOLE OR MIXED FORM

$$= 3 \frac{5}{6}$$

You can calculate the *mixed form of a number* from the *fraction* (a/b) form. Rename $23/6$ by dividing the numerator 23 by the denominator 6 as is shown in the example on the right. The quotient 3 is the whole number. The remainder 5 is the numerator and the denominator is the same denominator 6.

$$\begin{array}{r} 3 \\ 6 \overline{) 23} \\ \underline{18} \\ 5 \end{array} \qquad 3 \frac{5}{6}$$

Fraction Form to Mixed Form 7



FRACTION FORM

$$\frac{23}{6}$$

TO

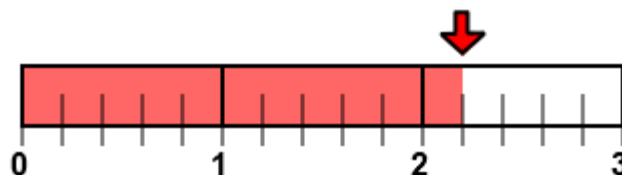
WHOLE OR MIXED FORM

=

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

The same amount, $\frac{23}{6}$, is shown with a number line.

Fraction Form to Mixed Form 8



FRACTION FORM

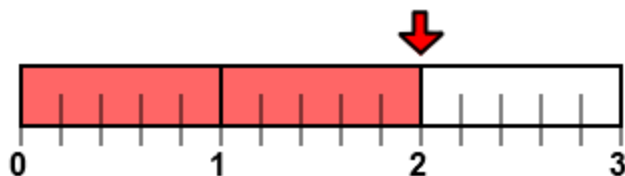
$$\frac{11}{5}$$

TO WHOLE OR MIXED FORM

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

The amount shown at the arrow can be written as $\frac{11}{5}$ or $2 \frac{1}{5}$. Notice that $\frac{5}{5}$ names one unit and that there are two $\frac{5}{5}$ units.

Fraction Form to Mixed Form 9



FRACTION FORM

$$\frac{10}{5}$$

TO

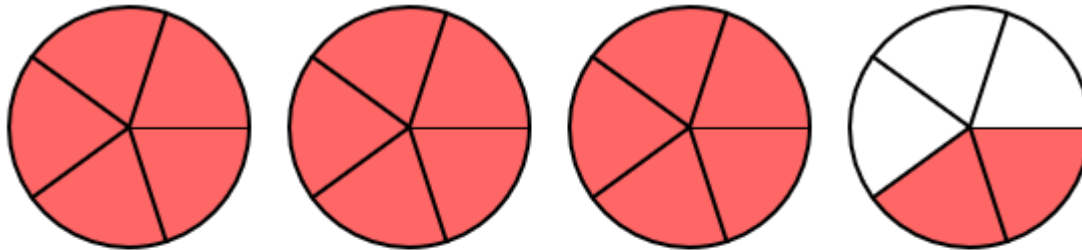
=

WHOLE OR MIXED FORM

2

Notice how the fraction $\frac{10}{5}$ gives the whole number 2.

Fraction Form to Mixed Form 10

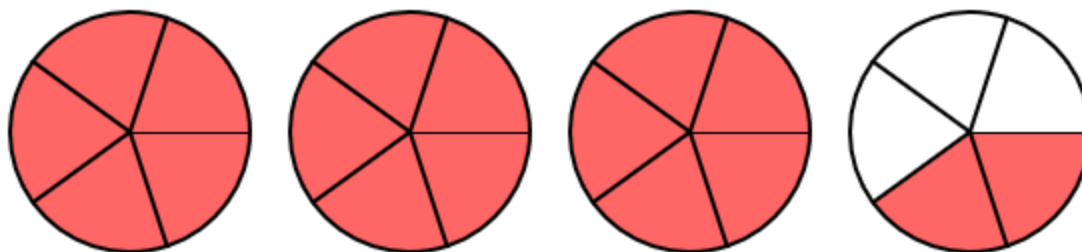


FRACTION FORM

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

Write in mixed or whole form.

Fraction Form to Mixed Form 11



FRACTION FORM

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

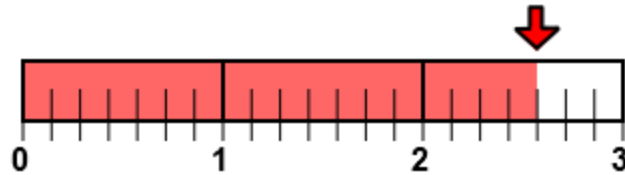
TO

WHOLE OR MIXED FORM

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

Divide the numerator 17 by the denominator 5.
The quotient 3 is the whole number. The remainder 2 is the numerator.
The divisor 5 is the denominator.

Fraction Form to Mixed Form 12

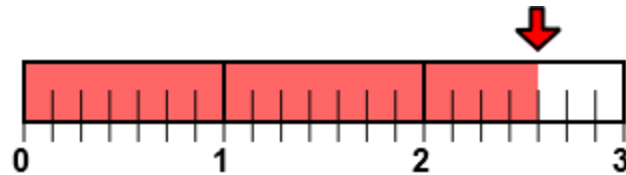


FRACTION FORM

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

Write in mixed or whole form.

Fraction Form to Mixed Form 13



FRACTION FORM

$$\frac{18}{7}$$

TO

WHOLE OR MIXED FORM

=

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

Divide the numerator 18 by the denominator 7.
The quotient 2 is the whole number.
The remainder 4 is the numerator.
The divisor 7 is the denominator.