

Percent Notation

Fraction \longrightarrow Percentage

1. To find the percentage of a portion that makes up a whole, begin by converting the fraction into decimal form by long division.

$$\begin{array}{ccc} \frac{4}{5} & \longrightarrow & 5 \overline{) 4.0} \\ \text{Fraction Form} & & \begin{array}{r} 0.8 \\ \underline{40} \\ 0 \end{array} & \longrightarrow & 0.8 \\ & & \text{Decimal Form} \end{array}$$

2. Multiply the decimal by 100% to convert to percentage notation.

$$\begin{array}{ccc} 0.8 & \cdot & 100\% = 80\% \\ \text{Decimal Form} & & \text{Percentage Form} \end{array}$$

Percent Notation

Mixed Numeral \longrightarrow Percentage

1. Convert the mixed numeral into its improper fraction form.

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

Mixed Numeral Form

Improper Fraction Form

2. Convert the fraction into decimal form by long division.

$$\frac{5}{2} \longrightarrow 2 \overline{) 5.0} \longrightarrow 2.5$$

$\begin{array}{r} 2.5 \\ \overline{) 5.0} \\ \underline{4} \\ 10 \\ \underline{10} \\ 0 \end{array}$

Fraction Form

Decimal Form

3. Multiply the decimal by 100% to convert to percentage notation.

$$2.5 \cdot 100\% = 250\%$$

Decimal Form

Percentage Form

Percent Notation

Percentage \longrightarrow Decimal

Divide the percentage by 100% to change it into decimal notation.

$$35\% \div 100\% = 0.35$$

Percentage Form

Decimal Form

Fraction Percentage \longrightarrow Decimal

1. Convert the fraction percentage into a decimal percentage by long division.

$$\frac{3}{4}\% \longrightarrow 4 \overline{) 3.00} \longrightarrow 0.75\%$$

Fraction Percentage Form *Decimal Percentage Form*

The long division shows 4 dividing 3.00 to get 0.75 with a remainder of 0.

2. Divide the percentage by 100% to change it into decimal notation.

$$0.75\% \div 100\% = 0.0075$$

Percentage Form

Decimal Form

Percent Notation

Mixed Numeral Percentage \longrightarrow Decimal

1. Convert the mixed numeral percentage into an improper fraction percentage.

$$70\frac{1}{2}\% \longrightarrow \frac{141}{2}\%$$

*Mixed Numeral
Percentage Form*

*Improper Fraction
Percentage Form*

2. Convert the fraction percentage into a decimal percentage by long division.

$$\frac{141}{2}\% \longrightarrow 2 \overline{) 141.0} \longrightarrow 70.5\%$$

Long division steps:
2 $\overline{) 141.0}$
- 14

010
- 10

0

3. Divide the percentage by 100% to change it into decimal notation.

$$70.5\% \div 100\% = 0.705$$

Percentage Form *Decimal Form*