

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.

$$\begin{array}{ccc} \frac{\textcolor{red}{4}}{\textcolor{blue}{5}} & \longrightarrow & \begin{array}{r} \textcolor{green}{0.8} \\ \textcolor{blue}{5} \overline{) \textcolor{red}{4.0}} \\ \underline{\textcolor{black}{40}} \\ \textcolor{orange}{0} \end{array} & \longrightarrow & \textcolor{green}{0.8} \\ \textit{Fraction Form} & & & & \textit{Decimal Form} \end{array}$$

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

$$\begin{array}{ccc} \textcolor{green}{0.8} & \bullet & \textcolor{magenta}{100\%} = \textcolor{magenta}{80\%} \\ \textit{Decimal Form} & & \textit{Percentage Form} \end{array}$$

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.

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

Long division steps:
2 $\overline{) 5.0}$
4 \downarrow
10
10
0

Fraction Form

Decimal Form

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

$$2.5 \bullet 100\% = 250\%$$

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.

$$\begin{array}{ccc} \frac{3}{4} \% & \longrightarrow & 4 \overline{) 3.00} \longrightarrow 0.75\% \\ \text{Fraction} & & \text{Decimal} \\ \text{Percentage Form} & & \text{Percentage Form} \end{array}$$

Long division steps:
4 $\overline{) 3.00}$
- 28

20
- 20

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**



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.

$$\frac{141}{2}\% \longrightarrow \begin{array}{r} 070.5 \\ 2 \overline{) 141.0} \\ \underline{-14} \\ 010 \\ \underline{-10} \\ 0 \end{array} \longrightarrow 70.5\%$$

*Fraction
Percentage Form*

*Decimal
Percentage Form*

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

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

Percentage Form

Decimal Form