

Topic: Converting Fractions to Percentages and Vice Versa

Introduction:

Fractions and Percentages are just two different ways of showing the same value. In some occasions you might be asked to represent data in one form in favor of the other form. This conversion helps in comparing data values or adapting to a required standard form (like in reports).

Refresher Video:

<https://youtu.be/QPNN3vy9rFg>

Summary:

To convert Fractions to Percentages:

Divide the top of the fraction by the bottom, multiply by 100 and add a "%" sign.

Example a:

Q: What is $\frac{5}{8}$ as a percentage?

A: In your calculator type " $5 \div 8 =$ ", the calculator will show 0.625, then multiply by 100 and your answer is: **62.5%**

Example b:

Q: Convert $\frac{3}{16}$ to a percentage?

A: $3 \div 16 * 100\% = 18.75\%$

To convert Percentages to Fractions:

Divide by 100, then simplify

Example a:

Q: Convert 80% to a fraction.

A: Divide 80 by 100 $\rightarrow \frac{80}{100}$. There are two methods to simplify:

Method 1: Enter **80÷100** in the calculator then press '='. The calculator will *automatically* convert the fraction to its simplest form; $\frac{4}{5}$.

Method 2: Divide both the top and the bottom by **20**. The fraction after the division will be $\frac{4}{5}$ which is the simplest form.

Example b:

Q: Convert 75% to a fraction.

A: If we divide both the top and bottom of $\frac{75}{100}$ by **25**, the fraction will be in its simplest form; $\frac{3}{4}$. This conversion could also be done in the calculator by entering '**75÷100 =**'

Questions:

1) Convert the following fractions into percentages.

(a) $\frac{1}{5}$

(b) $\frac{5}{8}$

(c) $\frac{7}{8}$

(d) $\frac{7}{12}$

(e) $\frac{11}{25}$

(f) $\frac{9}{20}$

(g) $\frac{19}{22}$

(h) $\frac{6}{7}$

2) Convert the following percentages into fractions

(a) 14%

(b) 37%

(c) 50%

(d) 24%

(e) 74%

(f) 142%

(g) 34%

(h) 72%

Answers:

1)

(a) 20%

(b) 62.5%

(c) 87.5%

(d) 58.3%

(e) 44%

(f) 45%

(g) 86.4%

(h) 85.7%

2)

(a) $\frac{7}{50}$

(b) $\frac{37}{100}$

(c) $\frac{1}{2}$

(d) $\frac{6}{25}$

(e) $\frac{37}{50}$

(f) $\frac{71}{50}$

(g) $\frac{17}{50}$

(h) $\frac{18}{25}$