

## Percent

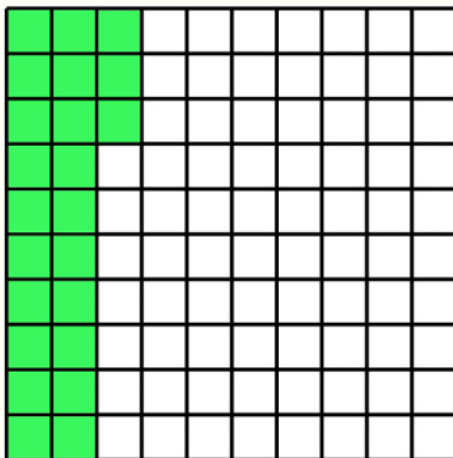
### Definition of a Percent

Percent means “per hundred”. The symbol for percent is %.

In the big square below, there are 100 small squares, and 23 of them are colored.  
We can say that 23% of the big square is colored.

A percent can be changed into a fraction and into a decimal.

$$23\% = \frac{23}{100} = 0.23$$



### How to Change a Percent to a Fraction

To change a percent to a fraction, drop the percent symbol, and divide by 100.

#### Examples:

$$3\% = \frac{3}{100}$$

$$120\% = \frac{120}{100} = 1\frac{20}{100} = 1\frac{1}{5}$$

$$25\% = \frac{25}{100} = \frac{1}{4}$$

$$33\frac{1}{3}\% = 33\frac{1}{3}\left(\frac{1}{100}\right) = \frac{100}{3} \cdot \frac{1}{100} = \frac{1}{3}$$

How to Change a Percent to a Decimal

To change a percent to a decimal, drop the percent symbol, and move the decimal point two places to the left.

Examples:

$$5\% = 0.05$$

$$150\% = 1.50$$

$$43\% = 0.43$$

$$0.07\% = 0.0007$$

How to Change a Decimal to a Percent

To change a decimal to a percent, move the decimal point two places to the right, and add the percent symbol.

Examples:

$$2.8 = 280\%$$

$$1.25 = 125\%$$

$$0.045 = 4.5\%$$

$$24 = 2400\%$$

How to Change a Fraction to a Percent

To change a fraction to a percent, first, convert the fraction into a decimal, then move the decimal point two places to the right, and add the percent symbol.

Examples:

$$\frac{2}{5} = 0.4 = 40\%$$

$$\frac{3}{16} = 0.1875 = 18.75\%$$

$$1\frac{4}{5} = 1.8 = 180\%$$

$$\frac{2}{3} = 0.\overline{6} = 66\frac{2}{3}\%$$