Pre-Algebra
Conversions of Percents to Decimals and Fractions

The word cent comes from the Latin *centum*, meaning 100. So,

- A penny is a cent.
- A century is 100 years.
- A Roman centurion was in charge of 100 soldiers.

Percent means "per 100" or "out of 100."

Conversion To and From Decimals

A percent is converted to a decimal by moving the decimal point two places to the left.

$$17\% = .17 \qquad\qquad 64\% = .64$$

A decimal is converted to a percent by moving the decimal point two places to the right.

$$.625 = 62.5\% \qquad\qquad .87 = 87\%$$

Conversion To and From Fractions

A percent is converted to a fraction by dividing the percent by 100 and reducing the fraction to lowest terns,

$$25\% = \frac{25}{100} = \frac{1}{4} \qquad\qquad 36\% = \frac{36}{100} = \frac{9}{25}$$

A fraction is converted to a percent by multiplying by 100.

$$\frac{3}{4}:\quad \frac{3}{4} \cdot 100\% = \frac{300}{4}\% = 75\% \qquad\qquad \frac{1}{5}:\quad \frac{1}{5} \cdot 100\% = \frac{100}{5}\% = 20\%$$

More Examples:

Percent	Decimal	Fraction
0%	0	$\frac{0}{100} = 0$
15%	.15	$\frac{15}{100} = \frac{3}{20}$
44%	.44	$\frac{44}{100} = \frac{11}{20}$
50%	.5	$\frac{50}{100} = \frac{1}{2}$

Percent	Decimal	Fraction
65%	.65	$\frac{65}{100} = \frac{13}{20}$
80%	.8	$\frac{80}{100} = \frac{4}{5}$
95%	.95	$\frac{95}{100} = \frac{19}{20}$
100%	1	$\frac{100}{100} = 1$