Fraction / Decimal / Percent Equivalents

For each of the fractions below, find the decimal equivalent and the percent equivalent, *without using a calculator*.

Example: Convert $\frac{3}{4}$ to a percent and a decimal.

To a percent

Think:

100% is the whole amount.

$\frac{1}{4}$ of 100% = 100% ÷ 4 = 25%.

Therefore

$\frac{3}{4}$ = 3 x $\frac{1}{4}$ =3 x 25% = 75%.

To a decimal

Think:

To convert from a percent to a decimal, divide by 100. To divide by 100, move the decimal point two places to the left.

75 ÷ 100 = 0.75

Therefore

$\frac{3}{4}$ = 75% = 0.75

Example: Convert $\frac{1}{6}$ to a percent and a decimal.

Think:

$\frac{1}{6}$ of 100% = 100% ÷ 6

I will use short division.

$$6\overline{)100.0000}\quad 16.666$$

So $\frac{1}{6} = 16.666\ldots\%$

But $0.666\ldots = \frac{2}{3}$.

So

$\frac{1}{6} = 16.666\ldots\% = 16\frac{2}{3}\%$

I convert this to a decimal by dividing by 100:

$16.666\ldots\% = 0.16666\ldots = 0.1\overline{6}$

Therefore

$\frac{1}{6} = 16\frac{2}{3}\% = 0.1\overline{6}$

$\frac{1}{2}$		
$\frac{1}{3}$		
$\frac{2}{3}$		
$\frac{1}{4}$		
$\frac{3}{4}$	75%	0.75
$\frac{1}{5}$		
$\frac{2}{5}$		
$\frac{3}{5}$		
$\frac{4}{5}$		
$\frac{1}{6}$	$16\frac{2}{3}\%$	$0.1\overline{6}$
$\frac{5}{6}$		

$\frac{1}{8}$		
$\frac{3}{8}$		
$\frac{5}{8}$		
$\frac{7}{8}$		
$\frac{1}{10}$		
$\frac{3}{10}$		
$\frac{7}{10}$		
$\frac{9}{10}$		
$\frac{1}{20}$		
$\frac{1}{40}$		
$\frac{1}{50}$		