

Converting % to a decimal: Divide by a 100

e.g) $15\% = \frac{15}{100} = 0.15$, $3.5\% = \frac{3.5}{100} = 0.035$

OR So simply we say move the decimal 2 places to the Left

e.g) $12.3\% = 0.123$, $7.25\% = 0.0725$

Converting decimal to a %: Multiply by a 100

e.g) $0.215 = 0.215 \times 100 = 21.5\%$, $0.0356 = 0.0356 \times 100 = 3.56\%$

OR simply we say move the decimal 2 places to the Right.

e.g) $0.175 = 17.5\%$, $0.0126 = 1.26\%$, $0.0056 = 0.56\%$

what is 35% of \$500, first change the percent to a decimal,
then multiply by 500,

∴ $35\% = 0.35 \rightarrow 0.35 \times 500 = \175.00

when investing money, the bank gives different options:

① Annually: Interest will be paid once every year read as 5% Per annum.
e.g 5% annually, written as 5%/a annum = annually

② Semi-annually: Interest paid twice per year, means ^{one} every 6 months

③ Quarterly: Interest paid four times per year, means once every 3 months.

④ Monthly: Interest paid 12 times/year, means once every month.

EX (1): $\frac{12\%}{a} = 6\%/s = 3\%/q = 1\%/m \rightarrow \frac{12}{2} = 6\%, \frac{12}{4} = 3\%, \frac{12}{12} = 1\%$

EX (2) $6.4\%/q = 6.4 \times 4 = 25.6\%/a$, $25.6 \div 2 = 12.8\%/s$, $25.6 \div 12 = 2.13\%/m$

EX (3) $2.15\%/m = 2.15 \times 12 = 25.8\%/a$, $25.8 \div 2 = 12.9\%/s$, $25.8 \div 4 = 6.45\%/q$

Read the 1 page note, and finish the rest of the page.

1. Convert each of the following to a percent. *move decimal to the right 2 places*
- a) $0.25 \rightarrow 25\%$ b) 0.07 _____ c) $1.20 \rightarrow 120\%$ d) 0.01 _____
 e) 0.628 _____ f) $0.0104 \rightarrow 1.04\%$ g) 0.0007 _____ h) 0.00123 _____

2. Convert each of the following to an ordinary decimal number. *move decimal 2 places to the left*
- a) $210\% \rightarrow 2.1$ b) $14.5\% \rightarrow 0.145$ c) 7.01% _____ d) 0.32% _____
 e) $5\frac{1}{2}\%$ _____ f) $12\frac{1}{4}\% \rightarrow 0.1225$
 $\frac{1}{4} = 0.25 \rightarrow 12.25\%$ g) $9\frac{3}{8}\% \rightarrow 0.09375$ h) $\frac{5}{8}\%$ _____
 $\frac{5}{8} = 0.625 \rightarrow 6.25\% = 0.0625$

3. Find each quantity, rounded to the nearest cent.

a) 23% of $\$455 = 0.23 \times 455 = \104.65

b) 9% of $\$98.74$ _____

c) 2.7% of $\$1365.78$ _____

d) $6\frac{5}{8}\%$ of $\$6500 = 0.06625 \times 6500 = \430.63
 $\frac{5}{8} = 0.625 \rightarrow 6.25\% = 0.0625$

4. Complete the table by converting each given time to all possible units.

	Months	Quarters	Half Years	Years
a	12	4	2	1
b	---			3
c	$3.5 \times 12 = 42$	$3.5 \times 4 = 14$	$7 \div 2 \rightarrow$	3.5
d		$11 \div 4 = 2.75$ yrs		$\frac{11}{4} = 2.75$
e	$39 \div 12 = 3.25$ yrs	13		$\frac{39}{12} = 3.25$
f				5.75

5. Complete the table by converting each of the given interest rates into the other equivalent forms.

	Monthly Rate %/m <i>12 times / yr</i>	Bi-monthly Rate (every 2 months) %/b <i>6 times / yr</i>	Quarterly Rate %/q <i>4 times / yr</i>	Semiannual Rate %/s <i>twice / yr</i>	once a year Annual Rate %/a <i>a means annually</i>
a	$36 \div 12 = 3\%$	$36 \div 6 = 6\%$	$36 \div 4 = 9\%$	$36 \div 2 = 18\%$	36
b					22.8
c	$2.5\%/m$			$30 \div 2 = 15\%$	$2.5 \times 12 = 30\%$
d			1.5		$1.5 \times 4 = 6\%$
e				7.8	$7.8 \times 2 = 15.6\%$
f		1.5			