Key Vocabulary

- decimal place
- decimal fraction
- recurring decimal
- equivalent fraction
- tenth
- sharing
- partitioning
- exchanging
- rounding to 3d.p.

Place Value

Tens	Ones	.	tenths	hundredths	thousandths
	1 1 1	.	0.1 0.1 0.1 0.1	0.01 0.01	0.001 0.001 0.001 0.001
					0.001 0.001

$$3 + \frac{4}{10} + \frac{2}{100} + \frac{6}{1000} \longleftarrow 3.426 \longrightarrow 3 + 0.4 + 0.02 + 0.006$$

1	2	3	4	5	6	7	8	9
0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09
0.001	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009

Fractions to Decimals

$$\frac{7}{20} \overset{\times 5}{=} \frac{35}{100} \text{ or } 0.35$$

$$\frac{7}{25} \overset{\times 4}{=} \frac{28}{100} \text{ or } 0.28$$

$$\frac{7}{50} \overset{\times 2}{=} \frac{14}{100} \text{ or } 0.14$$

$$\frac{8}{200} \overset{\div 2}{=} \frac{4}{100} \text{ or } 0.04$$

When the denominator is not a factor or multiple of 100

$\frac{7}{8} = 7 \div 8$

	0	.	8	7	5
8	7	.	^{7}0	^{6}0	^{4}0

Dividing Decimals by Integers

8.12 ÷ 4

	2	.	0	3
4	8	.	$\cancel{1}$	^{1}2

6.93 ÷ 3 = 2.31

Ones	.	tenths	hundredths
1 1	.	0.1 0.1 0.1	0.01
1 1	.	0.1 0.1 0.1	0.01
1 1	.	0.1 0.1 0.1	0.01