



Key Vocabulary

Place Value

Fractions to Decimals

- decimal place
- decimal fraction
- recurring decimal
- equivalent fraction
- tenth
- sharing
- partitioning
- exchanging
- rounding to 3 d.p
- hundredth
- thousandth
- equal to
- remainder
- grouping

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



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

$\frac{7}{20} = \frac{35}{100}$ or 0.35

$\frac{7}{25} = \frac{28}{100}$ or 0.28

$\frac{7}{50} = \frac{14}{100}$ or 0.14

$\frac{8}{200} = \frac{4}{100}$ 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	0	6	4

Dividing Decimals by Integers

$8.12 \div 4$

	2	0	3
4	8	1	2

$6.93 \div 3 = 2.31$

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



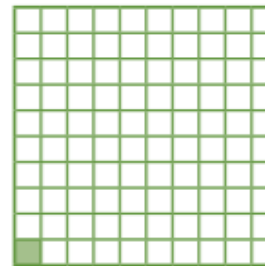
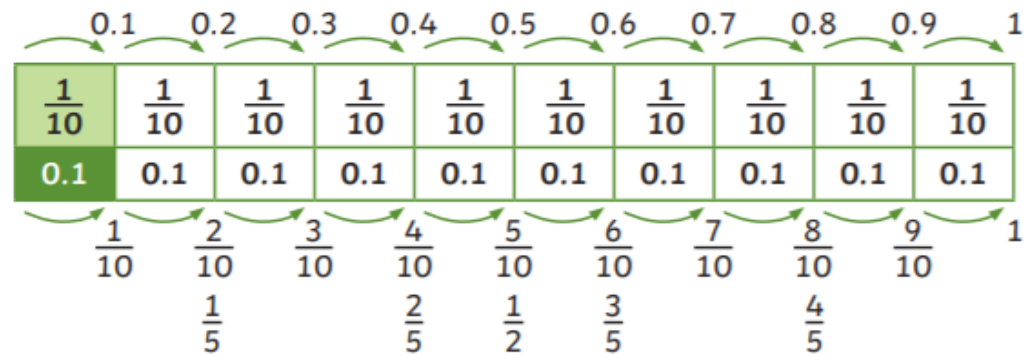
Multiplying and Dividing by 10, 100 and 1000

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
			2	0	8	
		← × 10				
		2	0	8		
				→ ÷ 10		
			2	0	8	

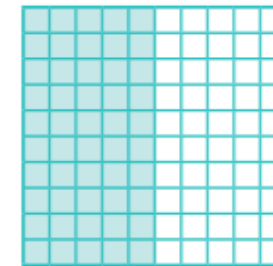
Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
		4	3	5		
← × 100						
4	3	5	0			
			→ ÷ 100			
		4	3	5		

Thousands	Hundreds	Tens	Ones	tenths	hundredths	thousandths
			1	3	5	1
← × 1000						
1	3	5	1			
			→ ÷ 1000			
			1	3	5	1

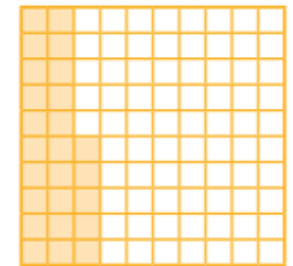
Decimal Numbers as Fractions



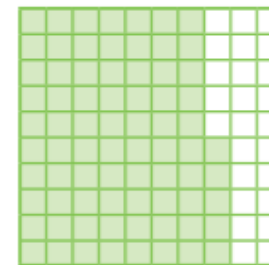
$$\frac{1}{100} = 0.01$$



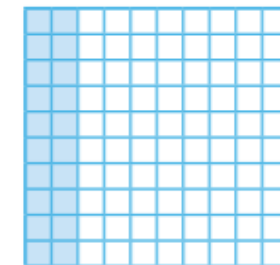
$$\frac{50}{100} = \frac{1}{2} = 0.5$$



$$\frac{25}{100} = \frac{1}{4} = 0.25$$



$$\frac{75}{100} = \frac{3}{4} = 0.75$$



$$\frac{20}{100} = \frac{1}{5} = 0.2$$

$$\frac{1}{3} = 0.33 \quad \frac{1}{8} = 0.125 \quad \frac{1}{1000} = 0.001$$

Multiplying Decimals by Integers

	3	4	5
×			3
<hr/>			
1	0	3	5
	1	1	

$$3.21 \times 3 = 9.63$$

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