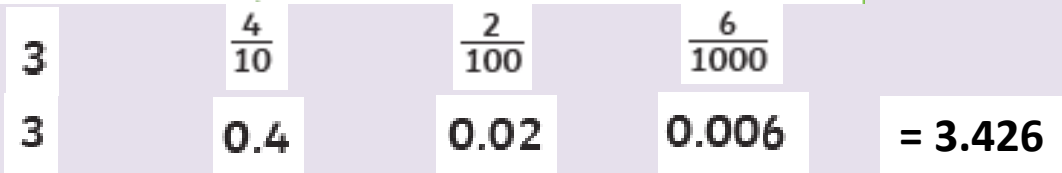
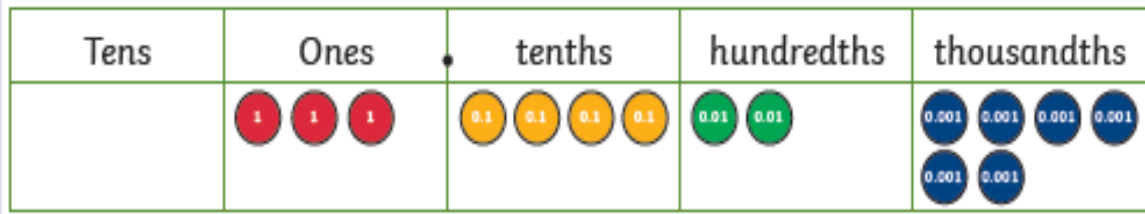


Place Value



Vocabulary

decimal place	Position of the digits to the right of a decimal point Represents a fraction of a whole number
2 decimal places 2dp	A number with 2 digits after the decimal point
3 decimal places 3dp	A number with 3 digits after the decimal point
decimal fraction	A fraction with a denominator of 10,100,1,000 ... It can be written with a decimal point
One Tenth	1/10 or 0.1
One Hundredth	1/100 or 0.01
One Thousandth	1/1000 or 0.001

Converting Fractions to Decimals

Some Key Facts

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

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

Make an equivalent fraction with a denominator of 100 (by multiplying or dividing) to convert into a decimal number

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

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

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

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

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

$$\frac{1}{1000} = \mathbf{0.001}$$

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

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

$$\frac{1}{10} = \frac{10}{100} \quad \mathbf{0.1}$$

1 whole = 10 tenths

1 tenth = 10 hundredths

1 hundredth = 10 thousandths

Multiplying a decimal by an integer

$3.21 \times 3 = 9.63$

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

	3	4	5
x			3
1	0	3	5
	1	1	

Dividing a decimal by an integer

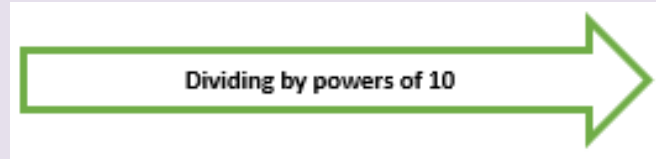
$6.93 \div 3 = 2.31$

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

$8.12 \div 4$

	2	0	3
4	8	1	2

Multiplying and Dividing by 10, 100 and 1,000



Thousands	Hundreds	Tens	Ones	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
			4	3	7	
		4	3	7		
	4	3	7			
		4	3	7		
4	3	7	0			

X 10
X 100
X 1,000

Thousands	Hundreds	Tens	Ones	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
		2	9			
			2	9		
		2	9	0	2	9
			9			
		2	9			
			0	0	2	9

$\div 10$
 $\div 100$
 $\div 1,000$