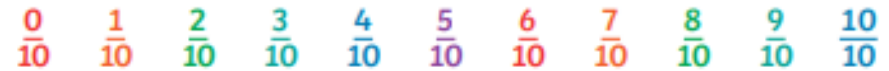
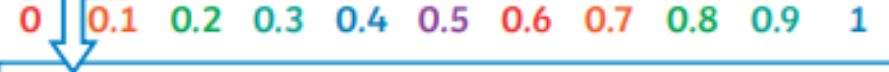
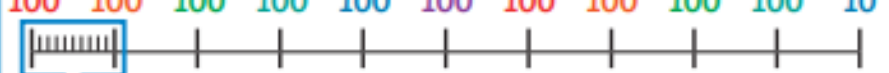
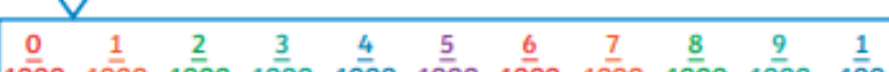

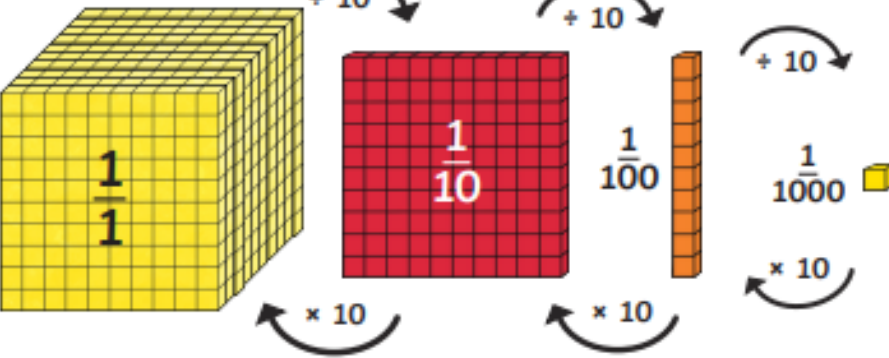


# Year 5 Maths: Decimals and percentages

Key Vocabulary	Tenths, Hundredths and Thousandths	Order and Compare Numbers with Three Decimal Places												
tenths		<table border="1"> <thead> <tr> <th>Ones</th> <th>Tenths</th> <th>Hundredths</th> <th>Thousandths</th> </tr> </thead> <tbody> <tr> <td></td> <td><math>\frac{1}{10}</math></td> <td><math>\frac{1}{100}</math></td> <td><math>\frac{1}{1000}</math>, <math>\frac{1}{1000}</math></td> </tr> <tr> <td>0</td> <td>.</td> <td>2</td> <td>1 3</td> </tr> </tbody> </table>	Ones	Tenths	Hundredths	Thousandths		$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$ , $\frac{1}{1000}$	0	.	2	1 3
Ones	Tenths	Hundredths	Thousandths											
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# Year 5 Maths: Decimals and percentages



## Multiplying and Dividing by 10, 100 and 1000

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	3	8		
3	8			

$\xrightarrow{+10}$  (arrow from 3 to 38)  
 $\xleftarrow{\times 10}$  (arrow from 38 to 3)

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	0	3	8	
3	8			

$\xrightarrow{+100}$  (arrow from 38 to 380)  
 $\xleftarrow{\times 100}$  (arrow from 380 to 38)

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
	0	0	3	8
3	8			

$\xrightarrow{+1000}$  (arrow from 38 to 3800)  
 $\xleftarrow{\times 1000}$  (arrow from 3800 to 38)

## Adding and Subtracting Decimals

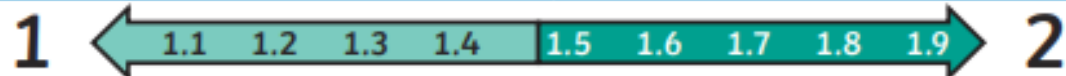
$$0.8 + 0.001 = 0.801$$

$$1.031 - 0.23 = 0.801$$

$$0.4005 + 0.4005 = 0.801$$

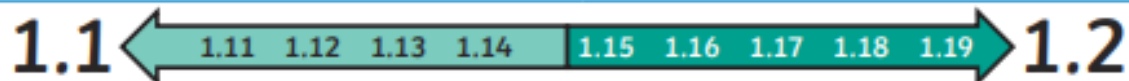


## Rounding Decimals



If the tenths digit is 1, 2, 3 or 4, we round down to the nearest whole number.

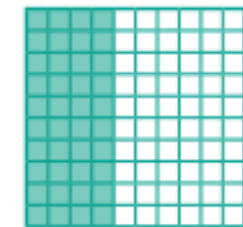
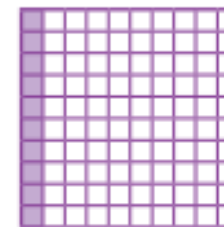
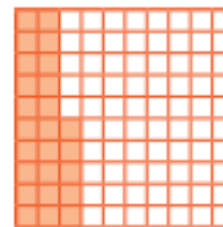
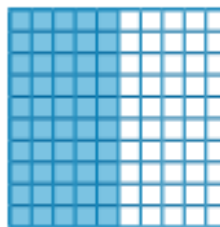
If the tenths digit is 5, 6, 7, 8 or 9, we round up to the nearest whole number.



If the hundredths digit is 1, 2, 3 or 4, we round down to the nearest tenth.

If the hundredths digit is 5, 6, 7, 8 or 9, we round up to the nearest tenth.

## Percentage and Decimal Equivalents



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

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

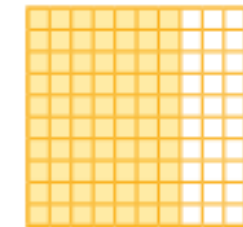
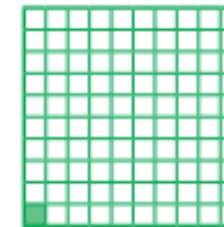
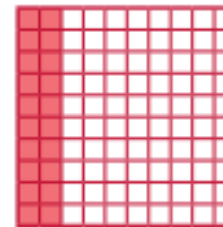
$$10\% = \frac{10}{100} = \frac{1}{10} = 0.1$$

$$40\% = \frac{40}{100} = \frac{2}{5} = 0.4$$

## Crossing the Whole

$$0.82 + 0.63 = 1.45$$

$$2.531 - 0.6 = 1.931$$



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

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

$$70\% = \frac{70}{100} = \frac{7}{10} = 0.7$$