

Key Vocabulary	
tenths	
hundredths	
thousandths	
decimal tenths	
converting	
bar model	
Decimal point	
part-whole model	
rounding	
place value	
fraction	
percentage	
numerator	
decimal places	
denominator	

Tenths, Hundredths and Thousandths

$\frac{0}{10}$ $\frac{1}{10}$ $\frac{2}{10}$ $\frac{3}{10}$ $\frac{4}{10}$ $\frac{5}{10}$ $\frac{6}{10}$ $\frac{7}{10}$ $\frac{8}{10}$ $\frac{9}{10}$ $\frac{10}{10}$
 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1

$\frac{0}{100}$ $\frac{1}{100}$ $\frac{2}{100}$ $\frac{3}{100}$ $\frac{4}{100}$ $\frac{5}{100}$ $\frac{6}{100}$ $\frac{7}{100}$ $\frac{8}{100}$ $\frac{9}{100}$ $\frac{10}{100}$
 0 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.1

$\frac{0}{1000}$ $\frac{1}{1000}$ $\frac{2}{1000}$ $\frac{3}{1000}$ $\frac{4}{1000}$ $\frac{5}{1000}$ $\frac{6}{1000}$ $\frac{7}{1000}$ $\frac{8}{1000}$ $\frac{9}{1000}$ $\frac{10}{1000}$
 0 0.001 0.002 0.003 0.004 0.005 0.006 0.007 0.008 0.009 0.01

Order and Compare Numbers with Three Decimal Places

Ones	Tenths	Hundredths	Thousandths
	$\frac{1}{10}$ $\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$ $\frac{1}{1000}$
0	.	2	1 3

Ones	Tenths	Hundredths	Thousandths
1		$\frac{1}{100}$ $\frac{1}{100}$	$\frac{1}{1000}$ $\frac{2}{1000}$
1	.	0	2 2

Ones	Tenths	Hundredths	Thousandths
1 1	$\frac{1}{10}$		$\frac{1}{1000}$ $\frac{1}{1000}$
2	.	1	0 3

Decimal Numbers as Fractions

$0.71 = \frac{71}{100} = \frac{7}{10} + \frac{1}{100}$

$0.37 = \frac{37}{100} = \frac{3}{10} + \frac{7}{100}$

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 10$				
	3	8		
		$\times 10$		
3	8			

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 100$				
	0	3	8	
			$\times 100$	
3	8			

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 1000$				
	0	0	3	8
$\times 1000$				
3	8			

Adding and Subtracting Decimals

$0.8 + 0.001 = 0.801$
$1.031 - 0.23 = 0.801$
$0.4005 + 0.4005 = 0.801$

Rounding Decimals

1

← 1.1 1.2 1.3 1.4

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

2

1.5 1.6 1.7 1.8 1.9 →

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

1.1

← 1.11 1.12 1.13 1.14

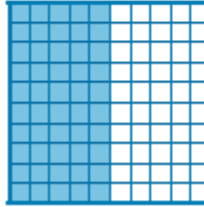
If the hundredths digit is 1, 2, 3 or 4, we round down to the nearest tenth.

1.2

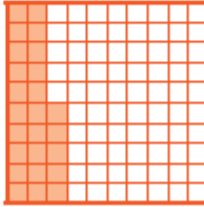
1.15 1.16 1.17 1.18 1.19 →

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

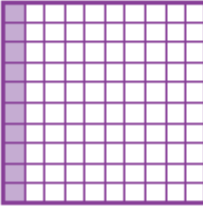
Percentage and Decimal Equivalents



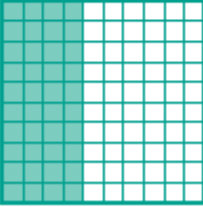
$50\% = \frac{50}{100} = \frac{1}{2} = 0.5$



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

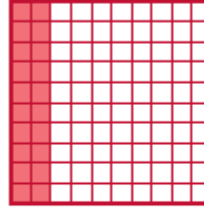


$10\% = \frac{10}{100} = \frac{1}{10} = 0.1$

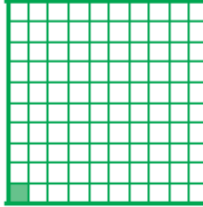


$40\% = \frac{40}{100} = \frac{2}{5} = 0.4$

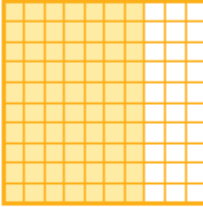
Crossing the Whole



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



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



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

$0.82 + 0.63 = 1.45$
$2.531 - 0.6 = 1.931$