

**3.0 DECIMALS**

3.1 Convert decimal to a fraction of tenths, hundredths and thousandths.

No	Decimal	Fraction of tenths,hundredths, thousandths
1	0.2	
2	0.04	
3	1.6	
4	3.081	
5	8.14	
6	0.008	
7	2.09	
8	4.432	
9	3.25	
10	3.006	
11	5.701	
12	8.001	
13	1.02	
14	0.05	
15	3.917	
16	0.132	
17	3.03	
18	4.019	
19	8.808	
20	0.003	

## 3.1. Convert fraction of tenths, hundredths, thousandths to a decimal

No	Value	Decimal
1	$\frac{1}{100}$	
2	$\frac{1}{1000}$	
3	$\frac{3}{10}$	
4	$\frac{3}{100}$	
5	$\frac{3}{100}$	
6	$4\frac{7}{10}$	
7	$7\frac{7}{100}$	
8	$9\frac{7}{1000}$	
9	$2\frac{11}{10}$	
10	$6\frac{11}{100}$	
11	$7\frac{11}{1000}$	
12	$2\frac{1}{10}$	
13	$2\frac{1}{100}$	

## 3.1.1 Convert decimal to decimals of tenths, hundredths and thousandths.

No.	Question	1 decimal place	2 decimal places	3 decimal places
Exp	1.23465	1.2	1.23	1.235
1	0.09876			
2	12.2345			
3	11.9876			
4	9.075630			
5	12.09542			
6	0.087642			
7	0.12647			
8	0.16482			
9	11.20856			
10	21.0897			
11	32.0987			
12	45.6547			
13	65.8769			
14	12.5432			
15	56.9076			

3.2 Add whole number or decimal with decimal up to 3 decimal places.

1. $23.945 + 6.37 =$	2. $76.545 + 23.8 =$
3. $6.054 + 27 =$	4. $76.4 + 8 =$
5. $5.68 + 12.386 =$	6. $76.123 + 8.2 =$
7. $27.006 + 20 =$	8. $6 + 1.23 =$

9. $23 + 6.374 =$	10. $76.76 + 23.824 =$
11. $21.293 + 3.15 =$	12. $76.46 + 8.2 =$
13. $15.5 + 12.386 =$	14. $23.98 + 8.209 =$
15. $9.3 + 71.893 =$	16. $25 + 7.345 =$

3.3 Subtract decimal from decimal or whole number.

1. $3.945 - 0.37 =$	2. $76.545 - 23.8 =$
3. $65.01 - 27.07 =$	4. $23.41 - 8.546 =$
5. $45.68 - 12.386 =$	6. $76.01 - 8.2 =$
7. $27.006 - 18.51 =$	8. $60.016 - 10.23 =$

9. $23 - 6.374 =$	10. $76 - 23.824 =$
11. $21.2 - 3.158 =$	12. $45 - 8.274 =$
13. $15.5 - 12.386 =$	14. $23.9 - 8.209 =$
15. $95 - 71.893 =$	16. $251 - 7.345 =$

3.4 Multiply decimal less than 10 with 1 digit

1. $3.405 \times 3 =$	2. $6.54 \times 5 =$
3. $1.054 \times 4 =$	4. $6.503 \times 7 =$
5. $5.68 \times 9 =$	6. $6.023 \times 6 =$
7. $5.09 \times 7$	8. $6.543 \times 5$



9. $1.709 \times 3 =$	10. $7.935 \times 7 =$
11. $1.054 \times 4 =$	12. $6.503 \times 7 =$
13. $8.876 \times 4 =$	14. $6 \times 5.023 =$
15. $8 \times 0.864$	16. $7 \times 5.543$

3.4 Divide decimal less than 10 .

1. $3.015 \div 5 =$	2. $6.51 \div 3 =$
3. $1.05 \div 5 =$	4. $6.307 \div 7 =$
5. $9.36 \div 8 =$	6. $6.048 \div 9 =$
7. $3.245 \div 5$	8. $1.014 \div 6$

9. $2.709 \div 3 =$	10. $4.932 \div 9 =$
11. $7.05 \div 5 =$	12. $6.013 \div 7 =$
13. $2.504 \div 8 =$	14. $4.536 \div 6 =$
15. $9.304 \div 4$	16. $7.218 \div 9$

Mixed Operation : Involving +, - and bracket.

<p>Example <math>23.45 - 17.634 + 45 =</math></p> <p>Solve from the left</p> $\begin{array}{r} 23.450 \\ - 17.634 \\ \hline 5.816 \\ + 45.000 \\ \hline 50.816 \end{array}$	<p>1. <math>76 - 34.76 + 23.876 =</math></p>
<p>2. <math>(76.5 + 123.987) - 189.72 =</math></p>	<p>3. <math>36.67 - (17.89 + 18) =</math></p>
<p>4. <math>(55 - 34.987) + 12.88 =</math></p>	<p>5. <math>44.9 + 57 - 99.023 =</math></p>
<p>6. <math>67 + 34.78 - 24.009 =</math></p>	<p>7. <math>74.9 - 33.276 + 41.624 =</math></p>

Add and subtract involving fractions of tenths, hundredths and thousandths

No.	Question	Convert fraction to decimal	Answer
Exp	$1\frac{9}{10} + 2\frac{71}{100}$	$1\frac{9}{10} = 1.9$ , $2\frac{71}{100} = 2.71$	$\begin{array}{r} 1.9 \\ + 2.71 \\ \hline 4.61 \end{array}$
1	$2\frac{7}{10} + 2\frac{31}{100}$		
2	$3\frac{713}{1000} + 2\frac{71}{100}$		
3	$2\frac{97}{100} + 3.3$		
4	$4.003 + 3\frac{3}{10}$		
5	$2\frac{7}{1000} + 0.077$		
6	$5.1 - 4\frac{17}{100}$		
7	$6\frac{5}{10} - 2.045$		
8	$7.9 - 1\frac{8}{100}$		
9	$6\frac{8}{1000} - 0.078$		
10	$5.01 - 1\frac{152}{1000}$		

Basic operation of decimals : State the answer in extended notation.

<p>Example     <math>23.945 + 6.37 =</math></p> $\begin{array}{r} 23.945 \\ + \underline{6.370} \\ \hline \underline{30.315} \end{array}$ <p>Extended Notation = <math>30 + 0.3 + 0.01 + 0.005</math></p>	<p>1.   <math>76.545 - 23.8 =</math></p>
<p>2     <math>6.054 \times 27 =</math></p>	<p>3.    <math>76.4 \div 8 =</math></p>
<p>4.    <math>5.68 + 12.386 =</math></p>	<p>5.    <math>76.123 - 8.2 =</math></p>
<p>6.    <math>27.006 \times 20 =</math></p>	<p>7.    <math>1.23 \div 6 =</math></p>

Basic operation of decimals : State the answer to 1 decimal place.

<p>Example     <math>23 - 6.374 =</math></p> $\begin{array}{r} 23.000 \\ - \underline{6.374} \\ \hline 16.626 \end{array}$ <p>1 decimal place = 16.6</p>	<p>1. <math>76.76 + 23.824 =</math></p>
<p>2     <math>21.293 \times 5 =</math></p>	<p>3. <math>76.46 \div 8 =</math></p>
<p>4.     <math>15.5 - 12.386 =</math></p>	<p>5.     <math>23.98 + 8.209 =</math></p>
<p>6     <math>71.893 \times 9 =</math></p>	<p>7     <math>20.755 \div 7 =</math></p>

Multiply decimal with whole number up to 2 decimal places.  
 State the answer to the nearest tens.

<p>1. <math>23.405 \times 37 =</math></p> $  \begin{array}{r}  23.407 \\  \times \quad 37 \\  \hline  163\ 849 \\  \underline{702\ 210} \\  866.059  \end{array}  $ <p>Round off to the nearest tens = 870</p>	<p>2. <math>6.54 \times 18 =</math></p>
<p>3. <math>1.054 \times 39 =</math></p>	<p>4. <math>6.503 \times 47 =</math></p>
<p>5. <math>5.68 \times 12 =</math></p>	<p>6. <math>6.023 \times 31 =</math></p>



Mixed Operation : Involving +, - and bracket.

<p>Example <math>23.45 - 17.634 + 45 =</math></p> <p>Solve from the left</p> $\begin{array}{r} 23.450 \\ - 17.634 \\ \hline 5.816 \\ + 45.000 \\ \hline 50.816 \end{array}$	<p>1. <math>76 - 34.76 + 23.876 =</math></p>
<p>2. <math>(76.5 + 123.987) - 189.72 =</math></p>	<p>3. <math>36.67 - (17.89 + 18) =</math></p>
<p>4. <math>(55 - 34.987) + 12.88 =</math></p>	<p>5. <math>44.9 + 57 - 99.023 =</math></p>
<p>6. <math>67 + 34.78 - 24.009 =</math></p>	<p>7. <math>74.9 - 33.276 + 41.624 =</math></p>