

Roll No. 161210025

| a | b | x | f(x) |
|----------|---|----------|--------------|
| 0 | 2 | 0 | -10 |
| 0.833333 | 2 | 0.833333 | -6.64352 |
| 1.20879 | 2 | 1.20879 | -2.38904 |
| 1.32413 | 2 | 1.32413 | -0.665156 |
| 1.35478 | 2 | 1.35478 | -0.171664 |
| 1.3626 | 2 | 1.3626 | -0.043428 |
| 1.36457 | 2 | 1.36457 | -0.0109286 |
| 1.36506 | 2 | 1.36506 | -0.00274868 |
| 1.36519 | 2 | 1.36519 | -0.000691759 |
| 1.36522 | 2 | 1.36522 | -0.000176012 |

Approximated root is 1.365

Roll No. 161210025

Your number: 1.Integer 2.Decimal

Enter choice: 1

Enter the no. of digits in your number: 4

Enter the array of numbers: 3

2

1

5

Enter the no. of significant digits you want to round off to: 2

32×10^2

Roll No. 161210025
 Enter the true value: 34.567
 Enter the truncated or rounded off value: 34.5
 Enter your choice
 1.Absolute Error
 2.Relative Error
 3.Percentage Error
 4.Exit
 1
 Absolute error is:0.067
 2
 Relative error is:0.00193826
 3
 Percentage error is:0.193826
 4
 Exiting..

Roll No. 161210025

| a | b | x | f(x) |
|---------|---------|---------|---------------|
| 2.34688 | 2.5 | 2.34688 | -1.66346 |
| 2.37607 | 2.5 | 2.37607 | -0.125837 |
| 2.37824 | 2.5 | 2.37824 | -0.0092685 |
| 2.3784 | 2.5 | 2.3784 | -0.000681316 |
| 2.37841 | 2.5 | 2.37841 | -5.00753e-005 |
| 2.37841 | 2.5 | 2.37841 | -3.6804e-006 |
| 2.37841 | 2.5 | 2.37841 | -2.70499e-007 |
| 2.37841 | 2.5 | 2.37841 | -1.98809e-008 |
| 2.37841 | 2.5 | 2.37841 | -1.46121e-009 |
| 2.37841 | 2.5 | 2.37841 | -1.0741e-010 |
| 2.37841 | 2.5 | 2.37841 | -7.89119e-012 |
| 2.37841 | 2.5 | 2.37841 | -5.77878e-013 |
| 2.37841 | 2.5 | 2.37841 | -5.20851e-014 |
| 2.37841 | 2.37841 | 2.37841 | 1.96128e-014 |

Approximated root is 2.378

Roll No. 161210025

Enter the no. of digits in your number: 4

Enter the array of numbers

1

4

5

2

Enter the no. of significant digits you want to truncate to: 3

145

Roll No. 161210025

Your number: 1.Integer 2.Decimal

Enter choice: 2

Enter the number: 12.345

Enter the no. of the significant digits after decimal point: 2

The rounded off no. is 12.35

Roll No. 161210025

Enter Trail Root: 0.3

Root after 1th iteration is: 0.34652

Root after 2th iteration is: 0.347296

Root after 3th iteration is: 0.347296

Roll No. 161210025

Enter Trail Root: 0

Root after 1th iteration is: 0.5

Root after 2th iteration is: 0.566311

Root after 3th iteration is: 0.567143

Root after 4th iteration is: 0.567143