

$(\text{pow}(x, 3) - 2 * x - 5)$

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C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter two initial guesses [a,b]: 2 3
Enter tolerable error: 0.001

Step      x0      x1      x2      f(x2)
1          2.000000  3.000000  2.500000  5.625000
2          2.000000  2.500000  2.250000  1.890625
3          2.000000  2.250000  2.125000  0.345703
4          2.000000  2.125000  2.062500  -0.351318
5          2.062500  2.125000  2.093750  -0.008942
6          2.093750  2.125000  2.109375  0.166836
7          2.093750  2.109375  2.101563  0.078562
8          2.093750  2.101563  2.097656  0.034714
9          2.093750  2.097656  2.095703  0.012862
10         2.093750  2.095703  2.094727  0.001954
11         2.093750  2.094727  2.094238  -0.003495
12         2.094238  2.094727  2.094482  -0.000771

Root is: 2.094482_
```

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C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter initial guesses: 4 2
Enter tolerable error: 0.0001
Enter maximum iteration: 10

Step      x0      x1      x2      f(x2)
1          4.000000  9.000000  9.000000  35.000000
2          2.000000  9.000000  4.000000  -10.000000
3          9.000000  4.000000  5.111111  -4.320987
4          4.000000  5.111111  5.956522  1.654063
5          5.111111  5.956522  5.722488  -0.143084
6          5.956522  5.722488  5.741121  -0.004015
7          5.722488  5.741121  5.741659  0.000010

Root is: 5.741659
```

$\text{return}(\text{pow}(x, 2) + x - 2);$

$\text{return}(2 * x + 1);$

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter initial guess: 0
Enter tolerable error: 0.0001

Step      x0      f(x0)      x1      f(x1)
1          0.000000  -2.000000  2.000000  4.000000
2          2.000000  4.000000  1.200000  0.640000
3          1.200000  0.640000  1.011765  0.035433
4          1.011765  0.035433  1.000046  0.000137
5          1.000046  0.000137  1.000000  0.000000

Root is: 1.000000_
```

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter initial guess: 0.5
Enter tolerable error: 0.0001

Step      x0      f(x0)      x1      f(x1)
1          0.500000  -0.020574  0.495885  -0.003615
2          0.495885  -0.003615  0.495162  -0.000636
3          0.495162  -0.000636  0.495035  -0.000112
4          0.495035  -0.000112  0.495012  -0.000020

Root is 0.495012
```

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter degree of the polynomial X : 3
Enter Coefficient of [ X^3 ] : 5
Enter Coefficient of [ X^2 ] : 4
Enter Coefficient of [ X^1 ] : 3
Enter Coefficient of [ X^0 ] : 9
Enter the value of X : 2
Value of the polynomial is = 71.000000
```

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter number of data: 4
Enter data:
x[1] = 0
y[1] = 0
x[2] = 1
y[2] = 1.7183
x[3] = 2
y[3] = 6.3891
x[4] = 3
y[4] = 19.0855
Enter interpolation point: 1.9
Interpolated value at 1.900 is 5.645.
```

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
HOW MANY ELEMENTS? :5
x[0] = 1
y[0] = 3
x[1] = 2
y[1] = 4
x[2] = 3
y[2] = 5
x[3] = 4
y[3] = 6
x[4] = 5
y[4] = 8
y = 1.200000x + 1.600000
```

$$(1 / (1 + \text{pow}(x, 2)))$$

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter lower limit of integration: 0
Enter upper limit of integration: 1
Enter number of sub intervals: 5
Required value of integration is: 0.784
```

$$(1 / (1 + \text{pow}(x, 2)))$$

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter lower limit of integration: 0
Enter upper limit of integration: 1
Enter number of sub intervals: 6
Required value of integration is: 0.785_
```

$$(1 / (1 + \text{pow}(x, 2)))$$

```
C:\Program Files (x86)\Dev-Cpp\ConsolePauser.exe
Enter lower limit of integration: -1
Enter upper limit of integration: 1
Enter number of sub intervals: 6
Required value of integration is: 1.569
```