In[89]:=
```
CLearAll;
RegulaFalsi[a0_, b0_, m_] :=
 Module[{a = N[a0], b = N[b0]},
 c = (a * f[b] - b * f[a]) / (f[b] - f[a]);
 k = 0;
 While[k < m,
 If[Sign[f[b]] == Sign[f[c]],
 b = c,
 a = c;];
 c = (a * f[b] - b * f[a]) / (f[b] - f[a]);
 k = k + 1;
 Print["Value at ", k, "th iteration is = ", NumberForm[c, 16]];
 ];
 ];
 RegulaFalsi[0, 1, 10];
 f[x_] := x^3 - 5 x + 1;
```

```
Value at 1th iteration is = 0.2025316455696203
Value at 2th iteration is = 0.2016543345503893
Value at 3th iteration is = 0.2016399160896553
Value at 4th iteration is = 0.2016396796646341
Value at 5th iteration is = 0.2016396757880281
Value at 6th iteration is = 0.2016396757244643
Value at 7th iteration is = 0.201639675723422
Value at 8th iteration is = 0.201639675723405
Value at 9th iteration is = 0.2016396757234046
Value at 10th iteration is = 0.2016396757234047
```

In[96]:=
```
CLearAll;
RegulaFalsi[0.4, 0.48, 10];
f[x_] := Tan[Pi * x] - x - 6;
```

```
Value at 1th iteration is = 0.4332027500739759
Value at 2th iteration is = 0.440495738843343
Value at 3th iteration is = 0.4448079249046763
Value at 4th iteration is = 0.447357748365212
Value at 5th iteration is = 0.4488655162418776
Value at 6th iteration is = 0.4497571071983663
Value at 7th iteration is = 0.4502843380178065
Value at 8th iteration is = 0.4505961108377328
Value at 9th iteration is = 0.4507804752457863
Value at 10th iteration is = 0.4508894978931669
```

In[114]:=
```
CLearAll;
RegulaFalsi[-3, -2, 10];
f[x_] := x^3 - 2 x^2 - 3 * x - 1;
```

```
Value at 1th iteration is = -1.346095351451432
Value at 2th iteration is = -1.198851598216988
Value at 3th iteration is = -1.095875562343383
Value at 4th iteration is = -1.019305991506305
Value at 5th iteration is = -0.95980424653572
Value at 6th iteration is = -0.911992801794713
Value at 7th iteration is = -0.872547773154931
Value at 8th iteration is = -0.839299788398312
Value at 9th iteration is = -0.810770463135432
Value at 10th iteration is = -0.7859161727450338
```

In[123]:=
```
CLearAll;
RegulaFalsi[1, 2, 10];
f[x_] := x^7 - 3;
```

```
Value at 1th iteration is = 1.030365595191943
Value at 2th iteration is = 1.043881795378887
Value at 3th iteration is = 1.056332907842791
Value at 4th iteration is = 1.067761457898108
Value at 5th iteration is = 1.078215144001591
Value at 6th iteration is = 1.08774567727413
Value at 7th iteration is = 1.096407603007756
Value at 8th iteration is = 1.10425716127296
Value at 9th iteration is = 1.1113512318614
Value at 10th iteration is = 1.117746395757803
```

In[126]:=
```
CLearAll;
RegulaFalsi[0, 1, 10];
f[x_] := Exp[-x] - x;
```

```
Value at 1th iteration is = 1.001829826166514
Value at 2th iteration is = 1.003646216233007
Value at 3th iteration is = 1.005449161961029
Value at 4th iteration is = 1.007238656730608
Value at 5th iteration is = 1.009014695544169
Value at 6th iteration is = 1.010777275029574
Value at 7th iteration is = 1.012526393442295
Value at 8th iteration is = 1.014262050666711
Value at 9th iteration is = 1.015984248216533
Value at 10th iteration is = 1.01769298923437
```