

## Método da bissecção

n	an	xn	bn	f(xn)	ERn
0	1.000000000e+01	1.050000000e+01	1.100000000e+01	6.382760625e+01	
1	1.000000000e+01	1.025000000e+01	1.050000000e+01	3.532760820e+01	2.439024390e-02
2	1.000000000e+01	1.012500000e+01	1.025000000e+01	1.156005242e+01	1.234567901e-02
3	1.000000000e+01	1.006250000e+01	1.012500000e+01	-3.172859250e+00	6.211180124e-03
4	1.006250000e+01	1.009375000e+01	1.012500000e+01	4.446005580e+00	3.095975232e-03
5	1.006250000e+01	1.007812500e+01	1.009375000e+01	7.008315856e-01	1.550387597e-03
6	1.006250000e+01	1.007031250e+01	1.007812500e+01	-1.219803396e+00	7.757951901e-04
7	1.007031250e+01	1.007421875e+01	1.007812500e+01	-2.554515835e-01	3.877471888e-04
8	1.007421875e+01	1.007617188e+01	1.007812500e+01	2.236963008e-01	1.938360147e-04
9	1.007421875e+01	1.007519531e+01	1.007617188e+01	-1.562578138e-02	9.692740138e-05
10	1.007519531e+01	1.007568359e+01	1.007617188e+01	1.040981885e-01	4.846135207e-05
11	1.007519531e+01	1.007543945e+01	1.007568359e+01	4.425194021e-02	2.423126318e-05
12	1.007519531e+01	1.007531738e+01	1.007543945e+01	1.431701402e-02	1.211577838e-05
13	1.007519531e+01	1.007525635e+01	1.007531738e+01	-6.534000859e-04	6.057925887e-06
14	1.007525635e+01	1.007528687e+01	1.007531738e+01	6.832052954e-03	3.028953769e-06
15	1.007525635e+01	1.007527161e+01	1.007528687e+01	3.089387901e-03	1.514479178e-06
16	1.007525635e+01	1.007526398e+01	1.007527161e+01	1.218009274e-03	7.572401625e-07

**Resultado achado: 10.075263977050781**

## Método de Newton

n	xn	f(xn)	f'(xn)	ERn
0	1.200000000e+01	1.703520000e+01	-4.773600000e+01	
1	1.235686275e+01	3.117316507e+00	-2.890749934e+01	2.887972072e-02
2	1.246470039e+01	2.877946268e-01	-2.280958073e+01	8.651442605e-03
3	1.247731765e+01	-4.152941983e-04	-2.209983343e+01	1.011216499e-03
4	1.247729886e+01	7.310882211e-06	-2.210088936e+01	1.506073913e-06
5	1.247729919e+01	-1.278240234e-07	-2.210087077e+01	2.651181412e-08

**Resultado achado: 12.477299193616568**

## Método da Secante

n	xn	f(xn)	ERn
0	1.400000000e+01	7.251200000e+00	
1	1.300000000e+01	-4.652300000e+00	7.692307692e-02
2	1.339083463e+01	-1.127578241e+00	2.918672654e-02
3	1.351586482e+01	6.362218056e-01	9.250624308e-03
4	1.347076507e+01	-1.740084449e-02	3.347972028e-03
5	1.347196572e+01	-2.080118284e-04	8.912229183e-05
6	1.347198025e+01	7.776543498e-08	1.078267395e-06
7	1.347198024e+01	-9.313225746e-10	4.029607845e-10

**Resultado achado: 13.471980244833022**

## Método da Falsa Posição

n	an	xn	bn	f(xn)	ERn
0	1.500000000e+01	1.597073137e+01	1.600000000e+01	-1.319294836e+00	
1	1.500000000e+01	1.566077385e+01	1.597073137e+01	-6.809231456e+00	1.979196711e-02
2	1.500000000e+01	1.519314886e+01	1.566077385e+01	-8.759327633e-01	3.077867498e-02
3	1.500000000e+01	1.514727967e+01	1.519314886e+01	1.155124931e-02	3.028212883e-03
4	1.514727967e+01	1.514787669e+01	1.519314886e+01	-2.418272197e-05	3.941283766e-05
5	1.514727967e+01	1.514787545e+01	1.514787669e+01	1.396983862e-09	8.233902384e-08

**Resultado achado: 15.147875445074835**

# Método de Horner

## Estimativas

k	xk	f(xk)	f'(xk)	ERk
0	1.650000000e+01	5.270810625e+01	1.844088750e+02	
1	1.621277872e+01	1.411197795e+01	9.224565104e+01	1.771573426e-02
2	1.605836945e+01	2.849910160e+00	5.678807718e+01	9.615501376e-03
3	1.600744171e+01	2.535559535e-01	4.696963400e+01	3.181504008e-03
4	1.600194745e+01	2.768807579e-03	4.596256323e+01	3.433491257e-04
5	1.600188612e+01	3.422610462e-07	4.595137735e+01	3.832927082e-06
6	1.600188611e+01	2.328306437e-09	4.595137596e+01	4.737562534e-10

Resultado achado: 16.001886110724858

## Coeficientes bi do Polinômio f(x)

k	b0,k	b1,k	b2,k	b3,k	b4,k	b5,k
0	5.270810625e+01	2.488301261e+04	-7.999393175e+03	9.579640500e+02	-5.067430000e+01	1.000000000e+00
1	1.411197795e+01	2.532145285e+04	-8.114065418e+03	9.678621322e+02	-5.096152128e+01	1.000000000e+00
2	2.849910160e+00	2.556423000e+04	-8.176967807e+03	9.732515026e+02	-5.111593055e+01	1.000000000e+00
3	2.535559543e-01	2.564540050e+04	-8.197912065e+03	9.750394985e+02	-5.116685829e+01	1.000000000e+00
4	2.768807521e-03	2.565419015e+04	-8.200177524e+03	9.752327035e+02	-5.117235255e+01	1.000000000e+00
5	3.421446308e-07	2.565428831e+04	-8.200202821e+03	9.752348607e+02	-5.117241388e+01	1.000000000e+00

## Coeficientes ci do Polinômio f(x)

k	c5,k	c4,k	c3,k	c2,k	c1,k
0	1.000000000e+00	-3.417430000e+01	3.940881000e+02	-1.496939525e+03	1.835104500e+02
1	1.000000000e+00	-3.474874256e+01	4.044884583e+02	-1.556183549e+03	9.139333166e+01
2	1.000000000e+00	-3.505756111e+01	4.102842344e+02	-1.588471993e+03	5.595987889e+01
3	1.000000000e+00	-3.515941659e+01	4.122271871e+02	-1.599209398e+03	4.614929042e+01
4	1.000000000e+00	-3.517040510e+01	4.124377293e+02	-1.600370653e+03	4.514306407e+01
5	1.000000000e+00	-3.517052776e+01	4.124400807e+02	-1.600383619e+03	4.513188760e+01