

input initial_single = 0.182322

 initial_double = 0.182321556794

n=	single value	double value	exact value
1	0.0883921831846	0.0883922160302	0.0883922160302
2	0.0580390840769	0.0580389198489	0.0580389198489
3	0.0431379129489	0.043138734089	0.043138734089
4	0.0343104352554	0.034306329555	0.034306329555
5	0.0284478237232	0.0284683522252	0.0284683522251
6	0.0244275480509	0.0243249055404	0.024324905541
7	0.0207194026027	0.021232615155	0.021232615152
8	0.0214029869864	0.0188369242248	0.0188369242401
9	0.00409617617935	0.0169264899873	0.0169264899104
10	0.0795191191033	0.0153675500637	0.0153675504482
11	-0.306686504607	0.0140713405907	0.0140713386682
12	1.61676585637	0.01297663038	0.0129766399925
13	-8.00690620492	0.012039925023	0.0120398769604
14	40.105959596	0.0112289463138	0.0112291866265
15	-200.463131314	0.0105219350978	0.0105207335343
16	1002.37815657	0.00989032451098	0.00989633232855
17	-5011.83195931	0.00937190685686	0.00934186776899
18	25059.2153521	0.00869602127127	0.0088462167106
19	-125296.024129	0.00915147259102	0.00840049539435
20	626480.170645	0.00424263704492	0.00799752302823
21	-3132400.8056	0.0264058623944	0.00763143247789
22	15662004.0735	-0.0865747665177	0.00729738306511
23	-78310020.3239	0.476352093458	0.00699134554401
24	391550101.661	-2.34009380062	0.00670993894663
25	-1957750508.27	11.7404690031	0.00645030526687
26	9788752541.37	-58.6638834771	0.00621001212721
27	-48943762706.8	293.356454423	0.00598697640098
28	244718813534.0	-1466.74655783	0.00577940370941
29	-1.22359406767e+12	7333.76727189	0.00558574007364
30	6.11797033835e+12	-36668.8030261	0.00540463296514