Function 1 = cos(x+1) - ln((x/5)+1)

Bisection Method

Roots	Iterations	Interval
0.4791551118124	39	[0,1]
none		[1,2]
none		[2,3]
none		[3,4]
4.3948783983215	36	[4,5]
5.9526646769446	37	[5,6]
none		[6,7]
none		[7,8]
none		[8,9]
none		[9,10]
Running Time (nano-seconds)	710,800	

Newton's Method

Roots	Iterations	Interval
0.4791551118131	4	0
0.4791551118131	4	1
4.3948783983204	10	2
4.3948783983204	6	3
4.3948783983204	4	4
4.3948783983204	5	5
5.9526646769453	3	6
5.9526646769453	5	7
4.3948783983204	5	8
out of range		9
out of range		10
Running Time (nano-seconds)	357,100	

Secant Method

Roots	Iterations	Interval
0.4791551118131	3	[0,1]
0.4791551118131	5	[1,2]
no root, unknown reason		[2,3]
4.3948783983197	4	[3,4]
4.3948783989204	6	[4,5]
5.9526646769453	5	[5,6]
5.9526646769458	4	[6,7]
5.9526646769453	6	[7,8]
no root, unknown reason		[8,9]
no root, unknown reason		[9,10]
Running Time (nano-seconds)	536,100	

Function 2 = tan(0.5+(x/3))

Bisection Method

Roots	Iterations	Interval
none		[0,1]
none		[1,2]
none		[2,3]
none		[3,4]
none		[4,5]
none		[5,6]
none		[6,7]
7.9247779607686	36	[7,8]
none		[8,9]
none		[9,10]
Running Time (nano-seconds)	453,900	

Newton's Method

Roots	Iterations	Interval
out of range		0
out of range		1
out of range		2
out of range		3
out of range		4
out of range		5
out of range		6
out of range		7
out of range		8
out of range		9
out of range		10
Running Time (nano-seconds)	191,400	

Secant Method

Roots	Iterations	Interval
-1.4999999999999	4	[0,1]
-1.5000000000000	6	[1,2]
-1.5000000000000	8	[2,3]
7.9247779607684	8	[3,4]
7.9247779607694	6	[4,5]
7.9247779607694	5	[5,6]
7.9247779607694	4	[6,7]
7.9247779607695	2	[7,8]
7.9247779607694	3	[8,9]
7.9247779607694	4	[9,10]
Running Time (nano-seconds)	832,500	

Function 3 = 1000/(x+1) + 3^x - 2x^3

Bisection Method

Roots	Iterations	Interval
none		[0,1]
none		[1,2]
none		[2,3]
none		[3,4]
none		[4,5]
none		[5,6]
none		[6,7]
none		[7,8]
none		[8,9]
none		[9,10]
Running Time (nano-seconds)	264,300	

Newton's Method

Roots	Iterations	Interval
too many iterations		0
too many iterations		1
-4.9999806337919	44	2
out of range		3
-4.9999806337919	50	4
-4.9999806337920	63	5
too many iterations		6
-4.9999806337921	41	7
-4.9999806337921	47	8
-4.9999806337920	63	9
-4.9999806337919	96	10
Running Time (nano-seconds)	2,531,500	

Secant Method

Roots	Iterations	Interval
-4.9999806337916	16	[0,1]
no root, unknown reason		[1,2]
-4.9999806337916	29	[2,3]
-4.9999806337916	28	[3,4]
no root, unknown reason		[4,5]
no root, unknown reason		[5,6]
-4.9999806337916	75	[6,7]
no root, unknown reason		[7,8]
-4.9999806337916	36	[8,9]
no root, unknown reason		[9,10]
Running Time (nano-seconds)	2,323,600	