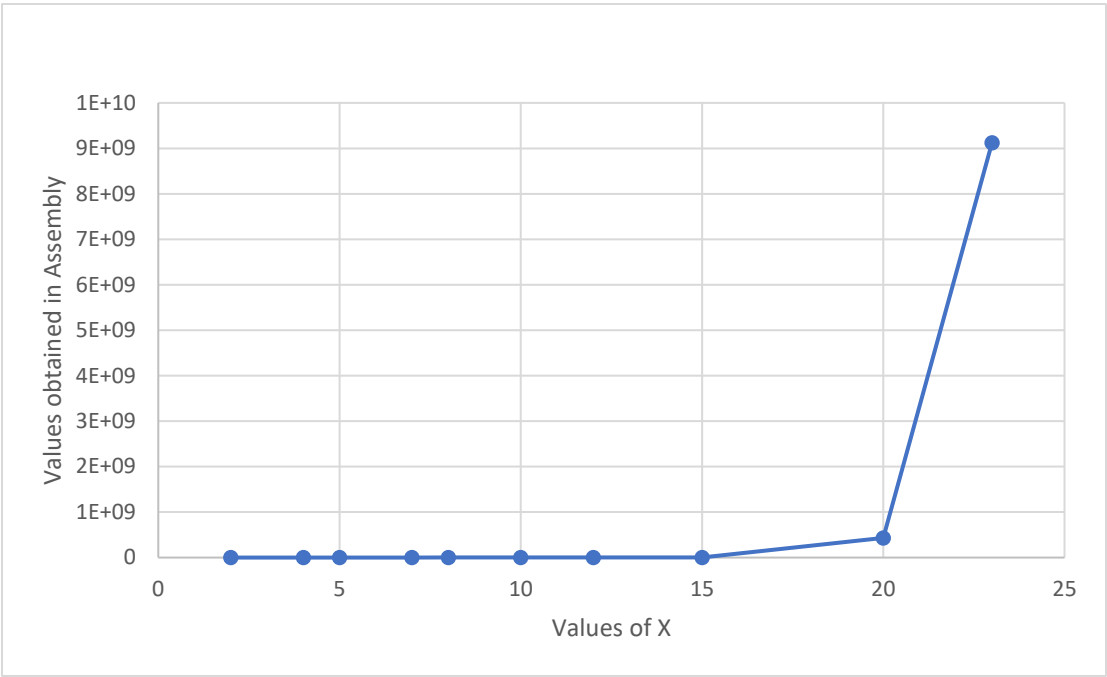


Report for Exponential Series:

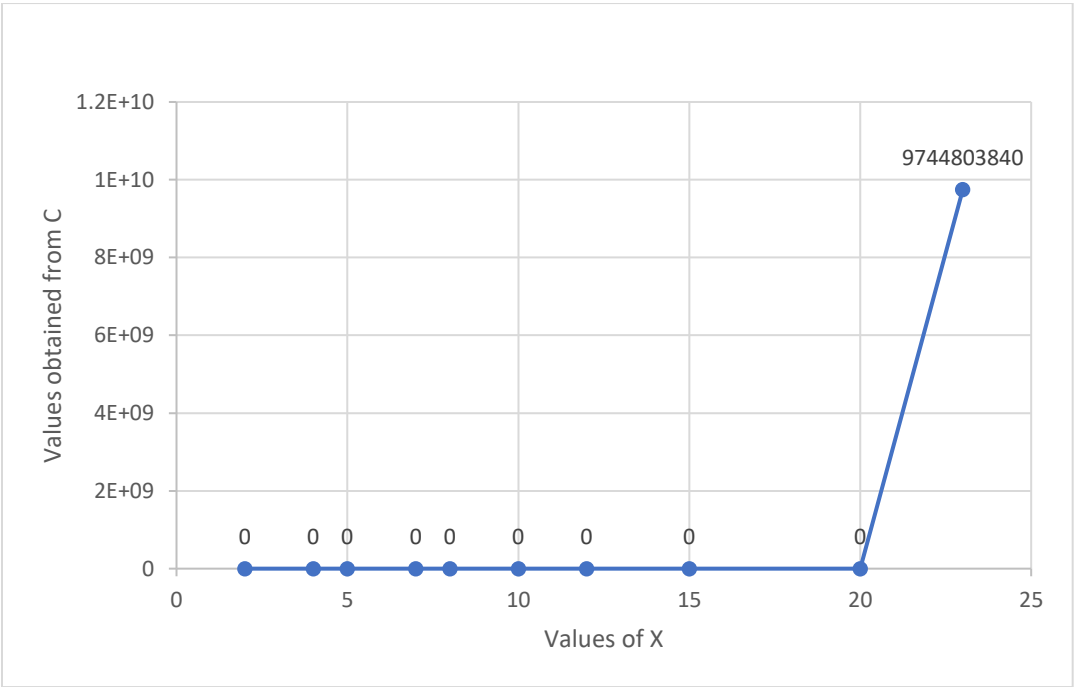
$$e^x = \sum_{n=0}^{\infty} \frac{x^n}{n!} = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$$

Exponential Series e^x				
Values of x	Calculated Value	Value obtained from Keil in Assembly	Number of iterations	Value obtained from Keil in C
2	7.389056099	7.38906	20	7.389056
4	54.59815003	54.5982	20	54.598148
5	148.4131591	148.413	20	148.413162
7	1096.633158	1096.62	20	1096.633179
8	2980.957987	2980.68	20	2980.958008
10	22026.46579	21991.5	20	22026.464844
12	162754.7914	160867	20	162754.796875
15	3269017.372	3248800	25	3269017
20	485165195.4	430737000	25	485165184
23	9744803446	9120970000	30	9744803840

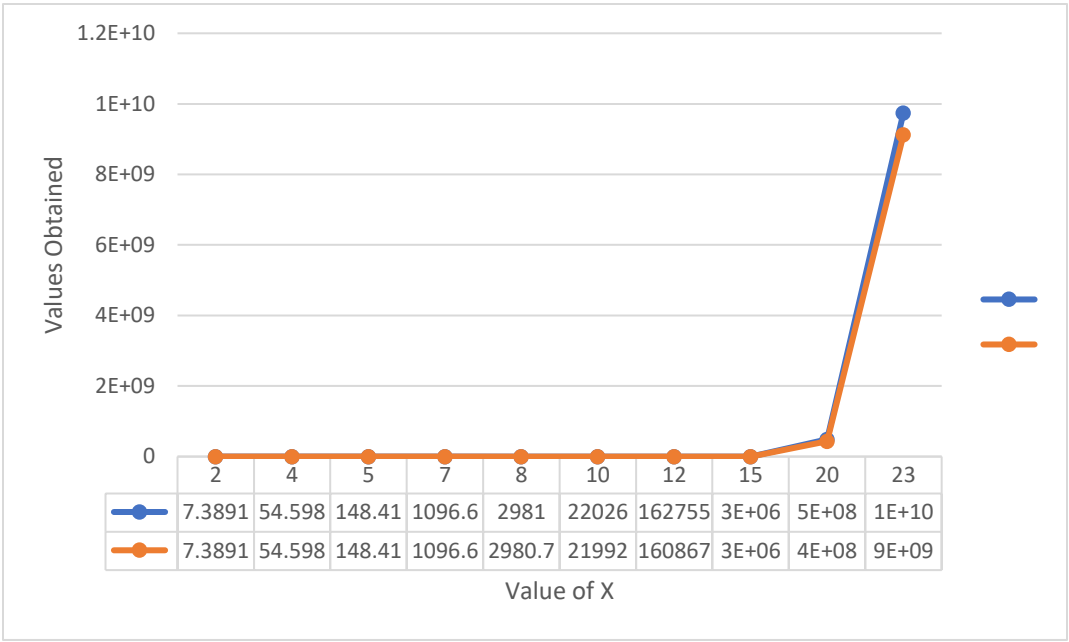
Exponential Series Graph for Keil:



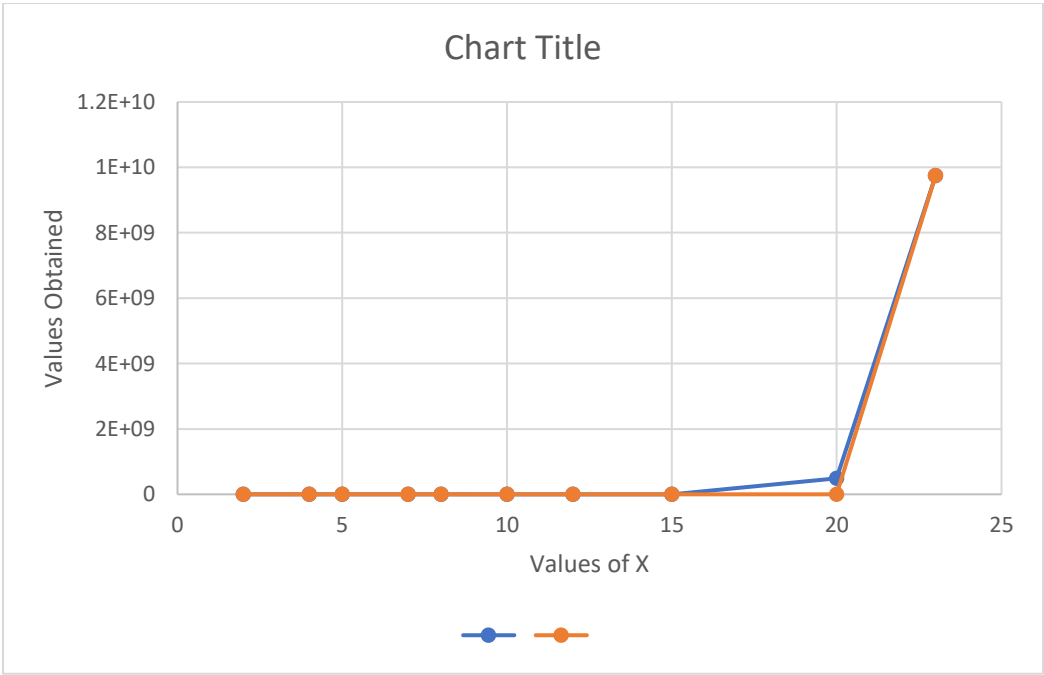
Exponential Series Graph for C Program:



Error in Values obtained by Keil with respect to Expected value:



Error in Values obtained by C with respect to Expected Value:

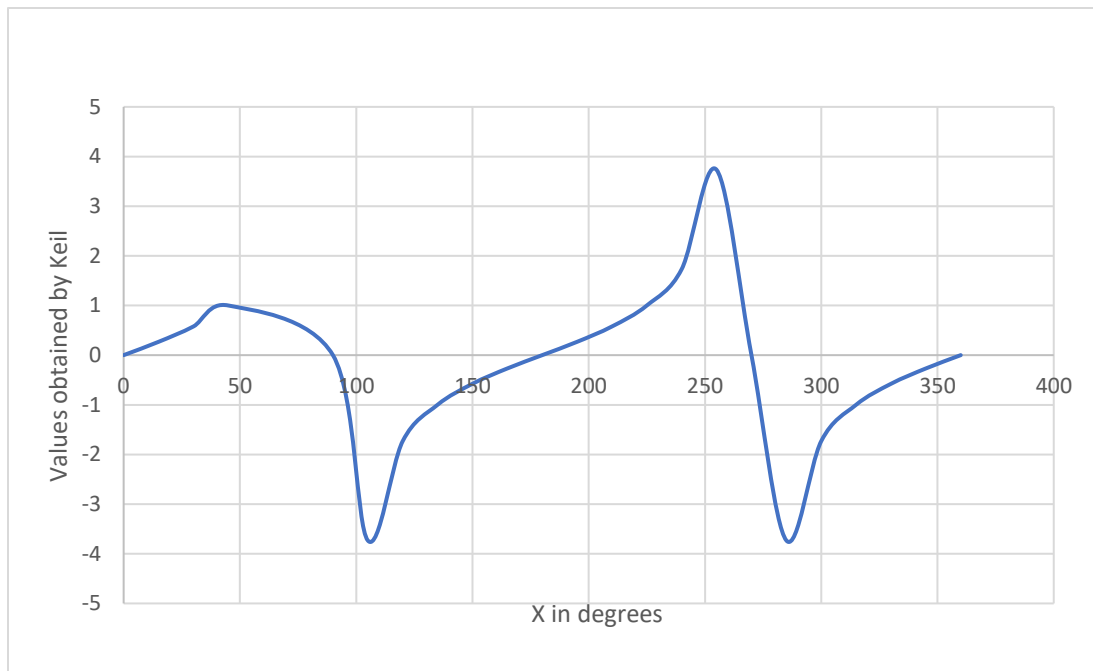


Report for Tangent Series:

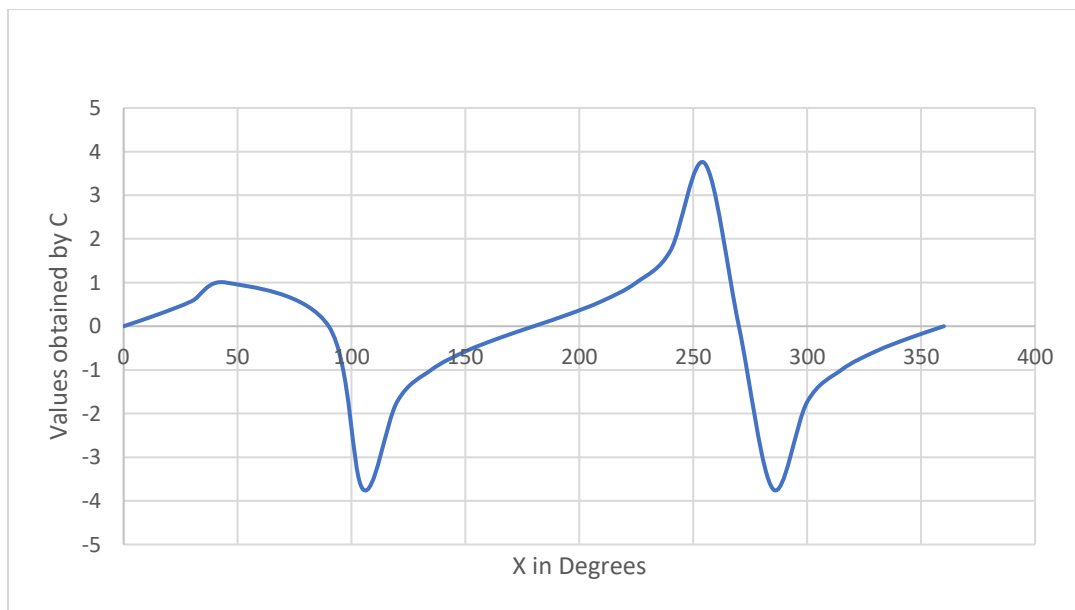
$$\begin{aligned}\tan x &= \sum_{n=0}^{\infty} \frac{U_{2n+1} x^{2n+1}}{(2n+1)!} \\ &= \sum_{n=1}^{\infty} \frac{(-1)^{n-1} 2^{2n} (2^{2n} - 1) B_{2n} x^{2n-1}}{(2n)!} \\ &= x + \frac{1}{3}x^3 + \frac{2}{15}x^5 + \frac{17}{315}x^7 + \dots, \quad \text{for } |x| < \frac{\pi}{2}.\end{aligned}$$

Tangent Series tan(x)			
Values of X in degrees	Calculated Value	Values obtained by Keil	Values obtained by C
0	0	0	0
15	0.267949192	0.267949	0.2679
30	0.577350269	0.57735	0.5773
45	1	1	1
90	infinte	infinte	infinte
105	-3.732050808	-3.73204	-3.7321
120	-1.732050808	-1.73205	-1.7321
135	-1	-0.999998	-1
150	-0.577350269	-0.577349	-0.5774
165	-0.267949192	-0.267948	-0.268
180	0	0	0
195	0.267949192	0.267951	0.2679
210	0.577350269	0.577352	0.5773
225	1	1	1
240	1.732050808	1.73206	1.732
255	3.732050808	3.73208	3.732
270	infinite	infinte	infinte
285	-3.732050808	-3.73198	-3.7321
300	-1.732050808	-1.73202	-1.732
315	-1	-0.999964	-1
330	-0.577350269	-0.577307	-0.5773
345	-0.267949192	-0.267881	-0.2679
360	0	0	0.0001

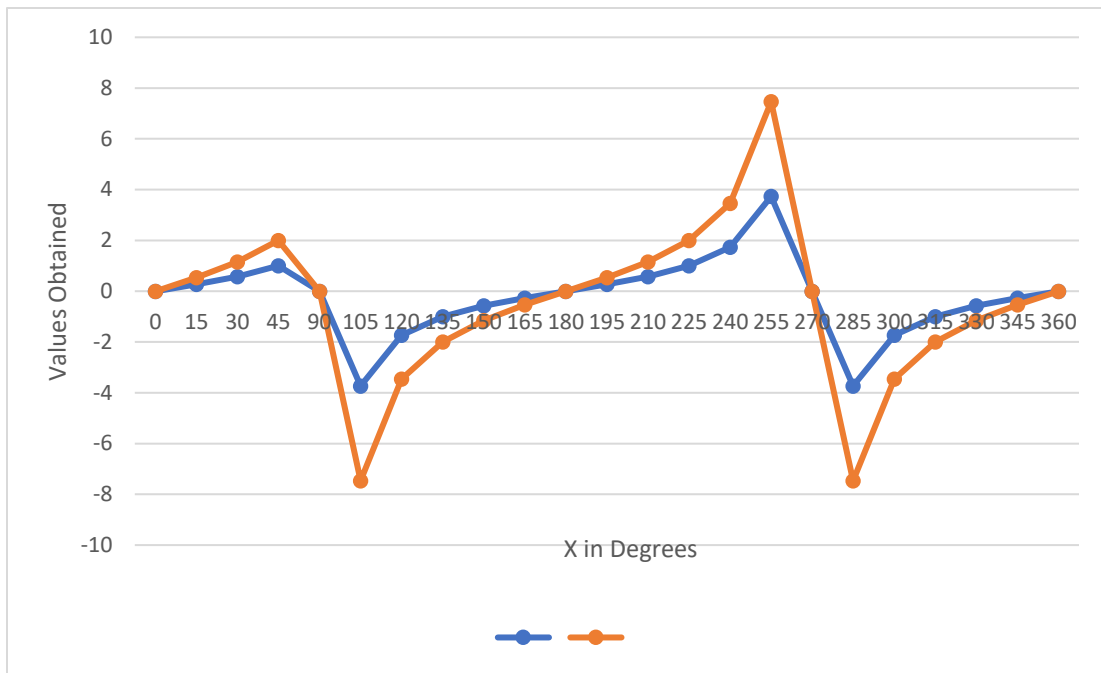
Tan(x) graph for Keil:



Tan(x) graph for C:



Error in values obtained by Keil with respect to Expected Value:



Error in values obtained by C with respect to Expected Value:

