GLG490/598 Numerical methods

Homework #1

Due 11:59pm, 1/21/2021

(50 points)

There is a root between (0,2) for the equation of $f(x) = x^3 + 2x - 5 = 0$. Use the method of false position to find this root. Use calculator and fill numbers into the following table. Save 4 digit for all numbers. I have already entered some for you.

Assume $f_0 = f(x_0)$, $f_1 = f(x_1)$, $f_2 = f(x_2)$. Remember:

$$x_2 = \frac{x_0 f_1 - x_1 f_0}{f_1 - f_0}$$

Iteration #	x_0	x_1	f_0	f_1	x_2	f_2
1	0.0000	2.0000	-5.0000	7.0000		
2						
3						
4						
5						
6						
7						
8						

How to submit your homework

1. Finish in numbers in the table. The table should be fillable.
2. Rename the pdf file using the format of 'FirstName-LastName-HW01.pdf'
3. Send this pdf file to Mingming.Li@asu.edu and enter the email subject title as "Numerical Methods Homework 01"