Math/CSC 440 - **Prof. Richard B. Goldstein** - Computer Homework #1 – 8th edition

#	Problem	Method	Algorithm	Solution(s)	Students
1	Sect 2.1 #5c	Bisection	alg021.for	$p_{17} = -2.191307$, $p_{17} = -0.798164$	
2	Sect 2.1 #19	Bisection	alg021.for	h =0.1617, depth is r - h = 0.8383 feet	
3	Sect 2.1 #20	Bisection	alg021.for	angle θ changes at the rate w = -0.317059	
4	Sect 2.2 #3a	Fixed Pt.	alg022.for	$21^{1/3} = 2.758924$	
5	Sect 2.2 #3d	Fixed Pt.	alg022.for	$21^{1/3} = 2.758924$	
6	Sect 2.2 #23	Fixed Pt.	alg022.for	$p_0 = 5$, $p_3 = 6.0028$, solve as $g(t)=(A - Be^{-ct})/D$	
7	Sect 2.3 #6b	Newton-Raphson	alg023.for	$p_4 = 1.397748$	
8	Sect 2.3 #16	Newton-Raphson	alg023.for	$p_{15} = 1.895488$	
9	Sect 2.3 #17a	False Position	alg025.for	$p_{17} = -0.04065850$, $p_9 = 0.9623984$	
10	Sect 2.3 #17b	Secant	alg024.for	$p_5 = -0.04065850$, $p_{12} = -0.04065850$	
11	Sect 2.3 #17c	Newton-Raphson	alg023.for	$p_5 = -0.04065929$, $p_{21} = 0.9623989$	
12	Sect 2.3 #26	Newton-Raphson	alg023.for	6.67% (annual)	
13	Sect 2.4 #5	Newton-Raphson	alg023.for	$p_0 = -0.5$, $p_{13} = -0.169607$; modified same answer	
14	Sect 2.5 #4	Steffensen's	alg026.for	$p_0^{(1)} = 2.152905$, $p_0^{(2)} = 1.873464$	
15	Sect 2.6 #2e	Bairstow	bairstow.for	0.846743, -3.358044, -1.494350 ± 1.744219i	
16	Laguerre Polynomial	Bairstow	bairstow.for	$P_5(x)=x^5-25x^4+200x^3-600x^2+600x-120=0$ 0.26356, 1.41340, 3.59643, 7.08581, 12.6408	

Project Report:

[1] State in full text/instructor problem.
[2] Version of Fortran used.
[3] Input used (may need more than one attempt)
[4] Output/Solution
[5] Any difficulties encountered – compiling, choice of input, etc.
[6] Would another method work better, faster? You may try my JavaScript routines.
[7] What did you learn in solving this problem?