

ASSIGNMENT 3

Due October 16, 2003

Problem 4

Write a Matlab function to implement the golden section search to find the minimum of a one-dimensional scalar function. The function must have reasonable input and output arguments. As usual, no global variables are allowed. Using the above function, solve computer problem 6.3(c) on p.303 of Heath. You will need to write a Matlab script file in order to set up and call the golden section search function.

Problem 5

Solve computer problem 6.5 on p.304 of Heath using the golden section search function you developed in problem 4. If you have problem with writing the golden section search function yourself, then you can use Matlab's `fminbnd` function to perform the one-dimensional minimization. However make sure that you show how one can extract out a dimensionless parameter from the problem before doing any computation. Your computation should involve mostly dimensionless quantities.