

**ME171**  
**Computer-Aided Engineering Design**  
**Spring Term, 2001**

**Homework #7**

**Due: May 31 2001**

Write a program, preferably in C or C++, to perform a Golden Section Search on:

$$f(x) = |\cos x|$$

where:

$$x_{L,1} = 36^\circ$$
$$x_{U,1} = 120^\circ$$

Use:

$$\epsilon = 0.1^\circ$$

You should turn in one page that shows an example output of data from your program (showing the steps taken and the final result), and also turn in a print-out of the C or C++ program source itself.

Please copy your executable (with your username as its name) to the directory:

`/home/cinyoung/ME171/hw7`

at the ECF.

**Class Web Page:** <http://www.design.caltech.edu/Courses/ME171/>

**TA: Cin-Young Lee, 310c Thomas, email:** [me171ta@design.caltech.edu](mailto:me171ta@design.caltech.edu)