CS730 Assignment #1

(1) Consider the function $f(x) = cosine\ x$ on the closed interval $[0, 2\pi]$. Use **Fibonacci Search** with exactly 5 function evaluations to trap the minimum solution point of the function on the interval. Use a sketch of the function as well as a table to show the precise points at which the function is evaluated. What is the exact final interval which contains the minimum solution point? What is the length of the final interval?

(2) What would be the length of the final interval containing the solution point if you were to use **Golden Section** with 5 function evaluations instead? Answer this question without carrying out any function evaluations.

All assignments are due at the beginning of class one week after they are assigned. No late assignments will be accepted.