

PHYS 105: Computational Physics I

Spring 2015

In-class exercise 1.2

Write a program to perform the following task. If you work in C/C++, use `double` precision throughout.

1. (a) Create a table listing, in three columns, x , $\sin x$, and $\cos x$, for $x = 0, \dots, 2\pi$ in steps of $\pi/500$. [Note: the quantities `M_PI` in C/C++, defined in `<cmath>`, and `math.pi` in Python contain π to 15 decimal places.]
(b) Plot the results: $\sin x$ and $\cos x$ versus x , on the same graph, using `gpl` or any other plotting program.