

MATH.2720 Introduction to Programming with MATLAB  
Homework on Two-Dimensional Plots, Part 2 (Due 2/26)

Please email me a script file containing the commands you used to answer these questions.

1. Plot the function  $f(x) = \cos(x)$  for  $-2\pi \leq x \leq 2\pi$  and mark the points  $(0, 1)$ , and  $(\pi, -1)$  with circles.
2. Add symmetric error bars to the graph you just generated using error bars of half-width 0.2 and 0.3 for the two points.
3. Use the `fplot` command to graph the function  $f(x) = \sin(\ln(x))$  for  $1 \leq x \leq 10$ .
4. Download the script file `temp_data.m` from the *Class Handouts* page on our course web site and run the file. This will generate a  $181 \times 1$  array named `Temp`. Generate a histogram with 11 bins for the data in this array. Label the horizontal axis `Temperature (F)` and label the vertical axis `Number of Days`.

(This file contains the daily high temperature at UMass Lowell for the dates January 1, 2014, through June 30, 2014. The data come from Dr. Colby in the EEAS Department.)