Homework #2

1) The series expansion for the cosine is
\[
\cos x = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \frac{x^6}{6!} + \ldots + \frac{(-1)^n x^{2n}}{(2n)!}
\]

Write a program (like the mysin example we did in class) that returns an estimate of the cosine, given a value x. Then plot the results of your cosine function and the Matlab cosine function over the range 0 to 2\pi, as we did in class. Turn in your script, your function and the plot.