King Fahd University of Petroleum and Minerals
Department of Mathematical Sciences
Math-321 , Semester (991)
Instructor : Dr. Faisal Fairag
HOMEWORK(1)
Due september 25,1999

Problem 1
do problem 7(b,c) , page 12

Problem 2
do problem 3(b,c) , page 12

Problem 3
do problem 4 , page 33

Problem 4
(a) do problem 1 , page 48
(b) do problem 2 , page 48
(c) verify your answer (integer part) with the Matlab commands *bin2dec* , *hex2dec* , *base2dec* , *bin2dec*

Problem 5
(a) write a Matlab script for evaluating a polynomial of any degree using nested multiplication.
(b) Test your code using the following polynomial $p(x) = 20x^6 - 5x^4 + 6x^3 + x - 20$ where $x = 2$
(c) Count the number of operations. compare with the count from the Matlab command *flops*.

Problem 6
(a) use formula(11) in page 24 to write a Taylor series to represent $\cos(\pi/3 + h)$ [find six terms]
(b) Verify your answer in (a) using the Matlab command *taylor*
(c) Evaluate cos(60.001) to eight decimal places.

(All Assignments must be done strictly in clear, clean and neat form.)