Homework (50 pts) ……. Due on Friday, 10/07/2016

(Chapter 1 & 2 continued)

Write the code as directed in the questions below:

Q1 (8pts)- Create a vector x with ...

a. 3, 6, 9, 12, ...

b. 14,12, 10, 8, 6, 4, 2, 0, -2, -4

c. -1/3, -1/2, 1, 1/2, 1/3, 1/4, 1/5, ...

d. 0, 1/2, 2/3, 3/4, 4/5, ...

Q2 (12pts) - Let x = [3 2 6 8]' and y = [4 1 3 5]'

a. Add the sum of the elements in x to y

b. Raise each element of x to the power specified by the corresponding

element in y.

c. Divide each element of y by the corresponding element in x

d. Multiply each element in x by the corresponding element in y, calling

the result "z".

e. Add up the elements in z and assign the result to a variable called "w".

f. Compute x'\*y - w and interpret the result

Q3(10pts)- Given a *vector*, t, of length n, write down the MATLAB expressions

that will correctly compute the following:

a. ln (2 + t2)

b. e t (1 + cos(3t))

c. cos2(t) + sin2(t)

d. tan-1(1) (this is the *inverse* tangent function)

e. cot(t)

Test that your solution works for t = 1:0.2:2

Q4(20pts)

1-Enter a list of names, age, sort them according to their last name.

2-Enter 20 numbers that are spaced equally with 6

3-Enter arrays of 10 names of students, their ID number, grades. Display the

results with the average grade as table

4- Find the angle between the two vectors a= 6i-2j-3k and b=i+j+k