NAME: Crisp, Daniel

TITLE: HOMEWORK, FUNCTIONS

CLASS: CPSC 131- F16

Q1- Write a void function to display an equilateral triangle on a polar plot.

function star( num, step )

%polar plot with 'num' points, and 'step' value rotational sizing for the steps between

%them. Plot starts at 90deg. Make sure to use pi\*(something) instead of

%degrees.

start=pi\*(1/2); step=step;

THETA = start:step:start+step\*num;

RHO = ones(1,num+1);

polar(THETA,RHO);

end

>>star(3,pi\*(2/3))

Q2- Write a recursive function to evaluate the Fibonacci function

function [ fib ] = fibonacci( n )

% fibonacci.m Outputs first 'n' fibonacci numbers...

fib(1) = 0;

fib(2) = 1;

for i=3:n

fib(i) = fib(i-2) + fib(i-1);

end

fib = fib(n);

end

>>fibonacci(7)

ans =

8

Q3- Write a function vout=insert\_after(v,x,k) that insert the value x into vector v after the k’th element

function [vout] = insert\_after(v,x,k)

v(k+1)=x;

vout = v;

end

>>v = [0,1,2,3,4]; v = insert\_after(v,5,5);

v =

0 1 2 3 4 5

Q4- Write a function that has two strings (s1,s2)and return 1,-1,0 if s1>s2, s1<s2 and s1=s2 respectively .

function [ans] = string\_compare( string1 , string2 )

str1 = str2double(string1); str2 = str2double(string2);

if str1>str2

ans = 1;

elseif str1<str2

ans = -1;

elseif str1==str2

ans = 0;

else

ans = 'Error';

end

end

>>s1 = '25'; s2 = '27'; ans=string\_compare(s1,s2)

ans =

-1