# Assignment Number: 3.7

# Problem Statement:

Writ a MATLAB programe to evaluate the equation

Y(x)=ln[1/1-x]

For any user specified value ‘x’, where x is a number less than one. Use an if structure to verify that the vlue passed to the programe is legal. If legal calculate y(x).

# Inputs:

A variable named ‘x’

# Outputs:

To find the value of y(x).

# Pseudocode:

* Read the value entered into the variable ‘x’.
* Calculate the value of y(x)
* Display the result.

# Program : ln\_calc.m

% Script File: ln\_calc

% Purpose: Determine the value of y(x)

% Record of Revision:

% Akash jaiswal 15/09/2015 Original

% Variable declaration

% Input Variables

% x—the value of x

% Output Variable

% y-the result.

%%

clc

clear all

close all

x=input('enter the value of x: ');

if(x<1)

y=log(1/(1-x));

fprintf('the value of function y is: %f\n',y);

else

disp('error in displaying y');

end

# Test Result:

enter the value of x: 0.8

the value of function y is: 1.609438