Name: Mubashar Khan **Assignment #:** 5

Summary of Problem Statement

Problem # 3

The goal of the program is to ask the user to enter an initial inventory and a vector of sales (various lengths). Then compute the number of carts in inventory for each of the weeks in the vector provided or until the inventory drops below zero.

Known / Input

I = initial inventory
Sales = user defined vector of sales
Redo = user chooses whether to repeat (Yes or No)

Unknown / Output

Week = number of weeks
Sales = amount entered for sales
Inventory = new inventory based on number of sales

Assumptions

None

Other Variables

numWeeks = length(Sales); %Acts as a counter for the number of weeks

x = [1,(1:weeks)]; Sets x coordinate vector
y = [1,Inventory((1:length(Inventory)-1))]; Sets y coordinate vector

Algorithm

The program asks the user to enter the initial inventory and then enter the sales for as many weeks as they desire
Data Validation will check to make sure the entered values fit the criteria set forth by the instructions.
From there it is just a matter of plugging the values into the equation on the instructions sheet and displaying the results
In addition to the nnormal insructions, I also did the bonus which was to graph the data.

Test Cases

One of the test case used for this was : Initial Inventory: 50 Sales: [50 55 60 70 70 75 80 80 90 55]

Week:	1	2	3	4	5	6	7	8	9	10
Sales:	50	55	60	70	70	75	80	80	90	55
Inventory:	50	50	45	40	30	30	25	20	20	10