//Main Pseudocode:

Data:

a, the array of integers that the user will enter

n, the number of elements the user enters into the array

m, the number the user wants to search for

Plan:

initialize a, n, and m.

n = GetSeries(a)

get user input for m.

if (Search(a,start,end,m) == 1)

print that m is in the series.

else

print that m is not in the series.

//Function Definition:

Function Name: GetSeries

Input:

a, the array of integers.

Output:

n, the number of elements in the array.

(with a side effect of setting a to the user input)

Plan

for(i = 0; i < 11; i++)

get user input for a[i]

if(a[i] == 0)

break from the loop.

increment n by one.

return n

//Function Definition:

Function Name: Search

Input:

a, the array of numbers.

start, end, the starting and ending indexes.

m, the number the user is searching for.

Output:

b, wether or not m is in the array.

Data:

mid, the midpoint of the array.

Plan:

find the midpoint of the array

if(start > end)

return b = 0

if(a[mid] == m)

return b = 1

else if(m > a[mid])

search the top half for m

b = Search(a,mid+1,end,m)

else

search the bottom half for m

b = Search(a,start,mid-1,m)

return b