#include <stdio.h>

#include<stdlib.h>

int head,n,\*req;

void insert(int i,int key){

for(int j=0;j<=i;j++){

if(j==i){

req[i]=key;

return;

}

else if(req[j]<key){

continue;

}

else{

for(int k=i;k>j;k--){

req[k]=req[k-1];

}

req[j]=key;

return;

}

}

}

void main() {

int DAT=0,temp,pos=-1;

printf("End position of Disk is at 200!!\n");

printf("Enter the current head position:");

scanf("%d",&head);

printf("Enter the no of requests:");

scanf("%d",&n);

req=(int\*)malloc(sizeof(int)\*n);

for(int i=0;i<n;i++){

printf("Enter request%d\n",i+1);

scanf("%d",&temp);

if(i==0)

req[0]=temp;

else{

insert(i,temp);

}

}

for(int i=0;i<n;i++){

if(pos==-1 && (head-req[i])<=0)

pos=i;

if((head-req[i])<=0){

DAT+=abs(head-req[i]);

head=req[i];

}

}

if(head!=200){

DAT+=abs(head-200);

head=200;

}

for(int i=pos;i>=0;i--){

DAT+=abs(head-req[i]);

head=req[i];

}

printf("Total Disk Access Time:%d",DAT);

}