MAKEFILE:

all: menu.o max.o min.o diff.o sum.o

gcc menu.o max.o min.o diff.o sum.o -o menu

menu.o: menu.c max.h min.h diff.h sum.h

gcc -c menu.c

max.o: max.c max.h

gcc -c max.c

min.o: min.c min.h

gcc -c min.c

diff.o: diff.c diff.h max.h min.h

gcc -c diff.c

sum.o: sum.c sum.h min.h

gcc -c sum.c

clean:

rm -r \*.o

DIFF.H:

int diff(int array[], int index);

DIFF.C:

#include "diff.h"

#include "max.h"

#include "min.h"

int diff(int array[], int index){

int difference;

difference = max(array, index) - min(array, index);

return difference;

}

MAX.H:

int max(int array[], int index);

MAX.C:

#include "max.h"

int max(int array[], int index){

int maximum = array[0], i = 0;

for (i; i < index; i++)

if (array[i] > maximum)

maximum = array[i];

return maximum;

}

MIN.H:

int min(int array[], int index);

MIN.C:

#include "min.h"

int min(int array[], int index){

int minimum = array[0], i = 0;

for (i; i < index; i++)

if (array[i] <= minimum)

minimum = array[i];

return minimum;

}

SUM.H:

int sum(int array[], int index);

SUM.C:

#include "sum.h"

#include "min.h"

int sum(int array[], int index){

int summa = 0, i = 0;

while (array[i] != min(array, index)){

summa = summa + array[i];

i++;

}

return summa;

}

MENU.C:

#include <stdio.h>

#include "max.h"

#include "min.h"

#include "diff.h"

#include "sum.h"

int main(){

int arr[100], ind = 0, n = 0;

char symb;

scanf ("%d", &n);

while (symb != '\n'){

scanf ("%d%c", &arr[ind], &symb);

ind++;

}

switch (n){

case 0:

printf ("%d\n", max(arr, ind));

break;

case 1:

printf ("%d\n", min(arr, ind));

break;

case 2:

printf ("%d\n", diff(arr, ind));

break;

case 3:

printf ("%d\n", sum(arr, ind));

break;

default:

printf ("Данные некорректны\n");

break;

}

}