7 Number Two

7.1 The Maximum Weight

A typical way to handle a sequence of data is using arrays. The following code shows how to find the maximum weight given the sequence of weights:

```c
#include <stdio.h>

int main()
{
    int weight[] = {56, 65, 84, 45, 75, 77, 86, 67, 75, 49};
    int size = sizeof weight / sizeof weight[0];
    int max_weight = 0;

    for (int i = 0; i < size; i++) {
        if (weight[i] > max_weight)
            max_weight = weight[i];
    }
    printf("The maximum weight: %d kg\n", max_weight);

    return 0 ;
}
```

Note the way to calculate the number of elements (`size`) of the array. The size of the whole array (`sizeof weight`)is divided by the size of the first element (`sizeof weight[0]`) to calculate the number of elements of the array.

7.2 Programming Lab 7: no2.c

Given a sequence of integers, find the second greatest one. For example, if the sequence of integers given is as follows:

1, 0, 2, -4, 7, 6, 8

The greatest one is 8 and the second greatest, i.e. the number two in ranking, is 7. Therefore your program should print 7 in this case.

The input consists of two lines in standard input. The first line contains a positive integer n ($1 < n < 100$), the number of integers. The second line contains n integers separated by space. The integers are in the range of `int` type. Your program should print the second greatest integer to standard output.

Additional requirements for bonus points

- Use only a single `for` loop without any other looping structures such as `while` or `do/while`.
- The loop should be implemented in a function.

Input	Output
7 1 0 2 -4 7 6 8	7
5 -2 -16 279 -15 0	0