# **Programming assignment 7**

# **Rodcutting**

## **Input (Standard input)**

In the first line, an integer N is given which means the length of Rod ( $1 \le N \le 100$ ). In the second line, N integers are given which means  $p_i$  ( $p_{i-1} \le p_i \le p_{i+1}$ ).  $p_i$  is the value when the length of Rod is i.

## **Output (Standard output)**

In the first line, print the maximum profit which could be made by the Rod's length of N.

In the next line, print the lengths of Rod for the maximum profit in non-decreasing order.

#### [Example]

Sample Input	Sample Output
10	30
1 5 8 9 10 17 17 20 24 30	10

Sample Output
10 2
2

#### **Description**

- 1. File name must be Rodcutting.cpp
- 2. Make a comment of your student ID, name and class in the first line of the source code. ex)
  2014601028 Honggildong A
- 3. Back up your submitted source code for an unexpected accident.