

# Programming assignment 7

## Rodcutting

### Input (Standard input)

In the first line, an integer  $N$  is given which means the length of Rod ( $1 \leq N \leq 100$ ).

In the second line,  $N$  integers are given which means  $p_i$  ( $p_{i-1} \leq p_i \leq p_{i+1}$ ).  $p_i$  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 1 5 8 9 10 17 17 20 24 30	30 10

Sample Input	Sample Output
4 1 5 8 9	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. Please keep the source code that you have submitted for some unexpected accident.