Programming assignment 9

Matrix chain

Input (Standard input)

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

In the next line, N+1 integers are given where the *i*th integer is p_i

Output (Standard output)

In first line, print minimum scalar multiplications to compute the product.

In the next line, print an optimal parenthesization of $A_1, A_2, \ldots, A_n$. When printing it, just print the parenthesis, and the number of matrix without 'A', and every parenthesis and number must be separated by a space.

[Example]

Sample Input	**Sample Output**
6 30 35 15 5 10 20 25	15125 ((1 (2 3)) ((4 5) 6))

Description

1. File name must be Matrixchain.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.