**[Rod Cutting](https://practice.geeksforgeeks.org/problems/rod-cutting0840/1)**

Given a rod of length **N** inches and an array of prices, **price[]**. **pricei** denotes the value of a piece of length **i**. Determine the maximum value obtainable by cutting up the rod and selling the pieces.

**Example 1:**

**Input:**

N = 8

Price[] = {1, 5, 8, 9, 10, 17, 17, 20}

**Output:**

22

**Explanation:**

The maximum obtainable value is 22 by

cutting in two pieces of lengths 2 and

6, i.e., 5+17=22.

**Example 2:**

**Input:**

N=8

Price[] = {3, 5, 8, 9, 10, 17, 17, 20}

**Output:** 24

**Explanation:**

The maximum obtainable value is

24 by cutting the rod into 8 pieces

of length 1, i.e, 8\*3=24.

**Your Task:**  
You don't need to read input or print anything. Your task is to complete the function **cutRod()** which takes the array **A[]** and its size **N**as inputs and returns the maximum price obtainable.

**Expected Time Complexity:** O(N2)  
**Expected Auxiliary Space:** O(N)

**Constraints:**  
1 ≤ N ≤ 1000  
1 ≤ Ai ≤ 105