Python Practice Questions [Basic]

Instructions:-

- There are 8 basic python-based problems.
- This is the Graded Assignment that you all have to attempt.
- The last problem is good coding interview questions which are usually asked in the first round of the interviews.
- Write all of these in your Python file giving the appropriate question name as well!

1.) Write a Python Program that can print the multiplication table of a number.

2.) Write a Python Program to find prime factors of a number.

3.) Write a Python Program to convert decimal to binary number

4.) Write a Python Program that prints out all the perfect numbers in a given range.
Example:- 28 is a Perfect Number because 1 + 2 + 4 + 7 + 14 = 28

5.) Write a Python Program that finds the sum of the divisors, and make sure that the divisor should be proper.

6.) Write a program which can filter odd numbers in a list by using filter function

7.) Write a program which can map() to make a list whose elements are cube of elements in a given list.

8.) Given a number N, print sum of all even numbers from 1 to N.

Problem :- **Can you help a Teacher?**

There was a little kid and his friend in the class, they liked chocolates very much.

There are **N** kids in the class. The kid with number **K**(1≤K≤N) will be happy if he receives at least **A_k** chocolates.
There are total **C** chocolates in all in the class.

The Teacher is interested in knowing whether it is possible to make all the **N** kids happy by giving each kid at least as many choco as he wants,
that is, the **K^th** kid should receive at least **A_K** Chocolates. Each Choco can be given to only one Kid. Print **Yes** if it is possible and **No** otherwise.

Input
The first line of the input file contains an integer T, the number of test cases. T test cases follow. Each test case consists of exactly 2 lines. The first line of each test case contains two space separated integers N and C, the total number of kids and the total number of Chocos in the class respectively. The second line contains N space separated integers A1, A2, ..., AN.

Output
For each test case output exactly one line containing the string Yes if it is possible to make all kids happy and the string No otherwise.

Example

Input:
2
2 3
1 1
3 7
4 2 2

Output:
Yes
No

Explanation of the above test cases:-
Case 1. We can give one choco to the first kid and two choco to the second kid and make them both happy. Hence the answer is Yes.

Case 2. Even if we give four chocolates to the first kid and two chocolates to the second kid we will have only one candy left and can not make the last kid happy since he needs two chocolates for his happiness. Hence the answer is No.