Mark and Toys

Problem Submissions Leaderboard Editorial Topics

Mark and Jane are very happy after having their first child. Their son loves toys, so Mark wants to buy some. There are a number of different toys lying in front of him, tagged with their prices. Mark has only a certain amount to spend, and he wants to maximize the number of toys he buys with this money.

Given a list of prices and an amount to spend, what is the maximum number of toys Mark can buy? For example, if $prices = [1, 2, 3, 4]$ and Mark has $k = 7$ to spend, he can buy items $[1, 2, 3]$ for 6, or $[3, 4]$ for 7 units of currency. He would choose the first group of 3 items.

Function Description

Complete the function *maximumToys* in the editor below. It should return an integer representing the maximum number of toys Mark can purchase.

maximumToys has the following parameter(s):

- *prices*: an array of integers representing toy prices
- *k*: an integer, Mark's budget

Input Format

The first line contains two integers, n and k, the number of priced toys and the amount Mark has to spend.
The next line contains n space-separated integers $prices[i]$

Constraints

$1 \leq n \leq 10^5$
$1 \leq k \leq 10^9$
$1 \leq prices[i] \leq 10^9$
A toy can't be bought multiple times.

Output Format

An integer that denotes the maximum number of toys Mark can buy for his son.

Sample Input

```
7 50
1 12 5 111 200 1000 10
```

Sample Output

```
4
```

Explanation

He can buy only 4 toys at most. These toys have the following prices: $1, 12, 5, 10$.

C#

```
using System.Text;
using System;

class Solution {

    // Complete the maximumToys function below.
    static int maximumToys(int[] prices, int k) {
        var sum = 0;
        var count = 0;
        var temp  = prices.OrderBy(a => a);
        foreach(var item in temp)
        {
            sum +=item;
            if(sum > k)
                return count;
            count++;
        }
        return count;
    }

    static void Main(string[] args) {
        TextWriter textWriter = new StreamWriter(@System.Environment.GetEnvironmentVariable
("OUTPUT_PATH"), true);

        string[] nk = Console.ReadLine().Split(' ');

        int n = Convert.ToInt32(nk[0]);

        int k = Convert.ToInt32(nk[1]);
```

Line: 29 Col: 22

Upload Code as File Test against custom input Run Code Submit Code

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99% 844.41/850

Problem Solving ★★★★

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Next Challenge

Testcase 0 | Testcase 1 | Testcase 2 | Testcase 3 | Testcase 4 | Testcase 5 | Testcase 6 | Testcase 7

Input (stdin) Download

```
7 50
1 12 5 111 200 1000 10
```

Expected Output Download

```
4
```