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< Basic Programming Challenges

# Electronics Shop 🔖

by nabila_ahmed

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Monica wants to buy one keyboard and one USB drive from her favorite electronics store. The store sells $n$ different brands of keyboards and $m$ different brands of USB drives. Monica has exactly $s$ dollars to spend, and she wants to spend as much of it as possible (i.e., the total cost of her purchase must be maximal).

Given the price lists for the store's keyboards and USB drives, find and print the amount money Monica will spend. If she doesn't have enough money to buy one keyboard *and* one USB drive, print  -1  instead.

**Note:** She will never buy more than one keyboard and one USB drive even if she has the leftover money to do so.

**Input Format**

The first line contains three space-separated integers describing the respective values of $s$ (the amount of money Monica has), $n$ (the number of keyboard brands) and $m$ (the number of USB drive brands).
The second line contains $n$ space-separated integers denoting the prices of each keyboard brand.
The third line contains $m$ space-separated integers denoting the prices of each USB drive brand.

**Constraints**

- $1 \le n, m \le 1000$

- $1 \le s \le 10^6$

- The price of each item is in the inclusive range $[1, 10^6]$.

**Output Format**

Print a single integer denoting the amount of money Monica will spend. If she doesn't have enough money to buy one keyboard *and* one USB drive, print  -1  instead.

**Sample Input 0**

```
10 2 3
3 1
5 2 8
```

**Sample Output 0**

```
9
```

**Explanation 0**

She can buy the $2^{nd}$ keyboard and the $3^{rd}$ USB drive for a total cost of $8 + 1 = 9$.

**Sample Input 1**

```
5 1 1
4
5
```

**Sample Output 1**

    -1

**Explanation 1**

There is no way to buy one keyboard and one USB drive because $4 + 5 > 5$, so we print $-1$.

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**Submissions:** 2347
**Max Score:** 15
**Difficulty:** Easy

**Rate This Challenge:**
★★★★★   Thanks!

More

Current Buffer (saved locally, editable)  ⑂ 🕘                                          C#  ⌄        ⤢  ⚙

```csharp
 1  using System;
 2  using System.Collections.Generic;
 3  using System.IO;
 4  using System.Linq;
 5  class Solution {
 6
 7      static void Main(String[] args) {
 8          string[] tokens_s = Console.ReadLine().Split(' ');
 9          int s = Convert.ToInt32(tokens_s[0]);
10          int n = Convert.ToInt32(tokens_s[1]);
11          int m = Convert.ToInt32(tokens_s[2]);
12          string[] keyboards_temp = Console.ReadLine().Split(' ');
13          int[] keyboards = Array.ConvertAll(keyboards_temp,Int32.Parse);
14          string[] pendrives_temp = Console.ReadLine().Split(' ');
15          int[] pendrives = Array.ConvertAll(pendrives_temp,Int32.Parse);
16          int min_dif = int.MaxValue;
17          int max_precio = 0;
18          bool hay = false;
19          for (int i = 0; i < n; i++)
20          {
21              for (int j = 0; j < m; j++)
22              {
23                  if (s - (keyboards[i] + pendrives[j])>= 0 && s - (keyboards[i] + pendrives[j]) <
24                  min_dif)
25                  {
26                  min_dif = s - (keyboards[i] + pendrives[j]);
27                  max_precio = keyboards[i] + pendrives[j];
28                  hay = true;
29              }
30              }
31          }
32          Console.WriteLine(hay ? max_precio :-1);
33      }
34  }
35
```

Line: 27 Col: 26

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

**Congrats, you solved this challenge!**

✔ Test Case #0                    ✔ Test Case #1                    ✔ Test Case #2

✔ Test Case #3                    ✔ Test Case #4                    ✔ Test Case #5

✔ Test Case #6                    ✔ Test Case #7                    ✔ Test Case #8

✔ Test Case #9                    ✔ Test Case #10                   ✔ Test Case #11

✔ Test Case #12                   ✔ Test Case #13                   ✔ Test Case #14

✔ Test Case #15

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✔ Test Case #0                    ✔ Test Case #1                    ✔ Test Case #2

✔ Test Case #3                    ✔ Test Case #4                    ✔ Test Case #5