Electronics Shop

RATE THIS CHALLENGE

A person wants to determine the most expensive computer keyboard and USB drive that can be purchased with a give budget. Given price lists for keyboards and USB drives and a budget, find the cost to buy them. If it is not possible to buy both items, return -1.

Example

$b = 60$

$keyboards = [40, 50, 60]$

$drives = [5, 8, 12]$

The person can buy a 40 **keyboard** $+ 12$ **USB drive** $= 52$, or a 50 **keyboard** $+ 8$ **USB drive** $= 58$. Choose the latter as the more expensive option and return 58.

Function Description

Complete the getMoneySpent function in the editor below.

getMoneySpent has the following parameter(s):

- int keyboards[n]: the keyboard prices
- int drives[m]: the drive prices
- int b: the budget

Returns

- int: the maximum that can be spent, or -1 if it is not possible to buy both items

Input Format

The first line contains three space-separated integers b, n, and m, the budget, the number of keyboard models and the number of USB drive models.

The second line contains n space-separated integers $keyboard[i]$, the prices of each keyboard model.

The third line contains m space-separated integers $drives$, the prices of the USB drives.

Constraints

- $1 \leq n, m \leq 1000$
- $1 \leq b \leq 10^6$
- The price of each item is in the inclusive range $[1, 10^6]$.

Sample Input 0

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

Sample Output 0

```
9
```

Explanation 0

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 return -1.

Change Theme Language Python 3

```
def getMoneySpent(keyboards, drives, b):
    max_spent = -1
    for k in keyboards:
        for d in drives:
            total = k + d
            if max_spent < total <= b:
                max_spent = total
    return max_spent

if __name__ == '__main__':
    fptr = open(os.environ['OUTPUT_PATH'], 'w')

    bnm = input().split()

    b = int(bnm[0])

    n = int(bnm[1])

    m = int(bnm[2])

    keyboards = list(map(int, input().rstrip().split()))

    drives = list(map(int, input().rstrip().split()))

    #
    # The maximum amount of money she can spend on a keyboard and USB drive, or -1 if she can't purchase bot
    #

    moneySpent = getMoneySpent(keyboards, drives, b)

    fptr.write(str(moneySpent) + '\n')

    fptr.close()

```

EMACS Line: 19 Col: 21

Run Code Submit Code

Upload Code as File Test against custom input

Congratulations

You solved this challenge. Would you like to challenge your friends?

Next Challenge

- Test case 0
- Test case 1
- Test case 2
- Test case 3
- Test case 4
- Test case 5
- Test case 6

Compiler Message

```
Success
```

Input (stdin) Download

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

Expected Output Download

```
9
```