Question **1**

Correct

Marked out of 10.00

You are given an integer array A of size N and an integer M. You have to distribute the elements of array A into M groups such that the maximum sum of elements in each group is minimum and the elements of array A allotted to any group is contiguous.

Write a program to determine the maximum sum of elements among all the groups.

Input format

· First line: T (number of test cases)

For each test case

· First line: Two space-separated integers N and M

· Second line: N space-separated integers (denoting the elements of the array)

Output format

For each test case, print the maximum sum of elements among all the groups in a new line.

Constraints

1≤T≤100

1≤M≤N≤10^4

1≤Ai≤10^5

Sample Input

1

5 3

1 2 3 4 5

Sample Output

6

Explanation

Best possible way to distribute the given 5 elements into 3 bags is to :-

Group 1:- {1,2,3}

Group 2:- {4}

Group 3:- {5}

Hence answer will 1+2+3=6.

For example:

Input	Result
1 5 3 1 2 3 4 5	6

Answer: (penalty regime: 0 %)

```
t=int(input())
for i in range(t):
    temp=input().split()
    n=int(temp[0])
    m=int(temp[1])
    arr=list(map(int,input().split()))
    low=max(arr)
    high=sum(arr)
    while low<high:
        mid=(low+high)//2
        c=1
        sum=0
        for i in range(n):
            if sum+arr[i]>mid:
                c+=1
                sum=arr[i]
            else:
```

```
                sum+=arr[i]
        if c>m:
            low=mid+1
        else:
            high=mid
    print(low)
```

	Input	Expected	Got	
✔	1 5 3 1 2 3 4 5	6	6	✔

Passed all tests! ✔