Lunch boxes

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Implementation, Basic Programming, Sorting, Basics of Greedy Algorithms, Basics of Implementation

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It is enough for us to sort the array and greedily take from the smallest number of necessary lunch boxes for schools.

Author's Solution

```
#include<bits/stdc++.h>
using namespace std;

const int MAX_N = 1e5 + 121;
int n, m;
int a[MAX_N];

void solve(){

    cin >> n >> m;
    for(int i = 1; i <= m; ++i){
        cin >> a[i];
    }

    sort(a + 1,a + m + 1);

    int cnt = 0;
    int sum = 0;

    for(int i = 1; i <= m; ++i){
        sum += a[i];
        if(sum <= n)++cnt; else break;
    }

    cout << cnt << endl;

}

int main(){

    ios_base::sync_with_stdio(false);
    cin.tie(NULL);
    cout.tie(NULL);

    int t;
    cin >> t;
    while(t-->0){
        solve();
    }

    return 0;
}
```

Tester's Solution

```
import sys

input = lambda: sys.stdin.readline().rstrip("\r\n")

t = int(input())
while t > 0:
    t -= 1
    n, m = map(int, input().split())
    a = list(map(int, input().split()))
    a.sort()
    i = 0
```

```
while i < m and a[i] <= n:
    n -= a[i]
    i += 1
print(i)
```

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