

CURD PRODUCERS

A curd manufacturing factory owns curd producing machines of different qualities. A curd producer of quality q produces 1 unit of curd in q units of time.

For example, a curd producer of quality 5 produces 1 unit of curd at time 5, 1 unit of curd at time 10 and so on..

Given the qualities of all the machines, find the minimum time required to produce T units of curd.

Input:

The first line consists of an integer t , the number of test cases. For each testcase, the first line consists of 2 integers n and T , the number of machines and the target amount of curd. The next n lines consists of integers representing the qualities of the producer machines.

Output:

For each test case, find the minimum time required to produce the target amount of curd.

Input Constraints:

$$1 \leq t \leq 10^2$$

$$1 \leq n \leq 10^4$$

$$1 \leq T \leq 10^9$$

$$1 \leq \text{quality of each machine} \leq 10^9$$

Note: Note that a quality 5 producer produces only 1 curd at time 9 and not 1.8.

Sample Input:

```
3
2 3
5
10
3 1000000
1
2
3
```

1 1000000000

1000000000

Sample Output:

10

545455

10000000000000000000