Description   **My Submissions**   **Hints/Editorial**   **AC Submissions**   **Video Editorials**   **My Notes (0)**

Maximise the fraction

🔖   ❓ Ask Doubt

⏱ Time-Limit: 4 sec   ✏ Score: 1.00/100   Difficulty : ⭐⭐⭐

💾 Memory: 256 MB   ✔ Accepted Submissions: 100 Relevant For: AZ-202   AZ-201   AZ-301

Description

Given two arrays A and B of size N and an integer K. You have to select K indexes $i_1, i_2, i_3 .... i_K$ such that

$(A[i_1]+A[i_2]+A[i_3]+......+A[i_K]) / (B[i_1]+B[i_2]+B[i_3]+......+B[i_K])$ is maximum.

Input Format

The first line contains T, the number of test cases ($1<=T<=10000$).

The first line contains an integer N, K where $1<=N<=10\text{\textasciicircum}4, 1<=K<=N$.

Next line contains N space-separated integers ($1<=Ai<=1e4$).

Next line contains N space-separated integers ($1<=Bi<=1e4$).

Sum of N across all test cases<=10^5.

Output Format

For each test case print the maximum possible value of $(A[i_1]+A[i_2]+A[i_3]+......+A[i_K]) / (B[i_1]+B[i_2]+B[i_3]+......+B[i_K])$. **You have to print the result round off to 6 decimal places.**

Sample Input 1   ⧉ Copy

```
3
3 2
10 9 7
3 5 4
8 3
4 4 2 1 5 3 2 5
2 2 2 5 3 5 2 3
1 1
1
1
```

Sample Output 1   ⧉ Copy

```
2.428571
1.857143
```

C++14[GCC] ▾

🔄 ⧉ ⬆   Submit

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