CCO '97 P4 - High Tide

Time limit: 2.0s   **Memory limit:** 64M

Canadian Computing Competition: 1997 Stage 2, Day 2, Problem 1

A planet has N moons revolving about it in constant clockwise coplanar circular orbits. How often do **all** the moons appear directly overhead as viewed from some point on the planet? We will call such a situation a "vertical alignment."

Input Specification

Your input consists of T sets of data, where T $(1 \leq T \leq 100)$ is the first integer in the input: each set consists of an integer N $(2 \leq N \leq 5)$, indicating the number of moons, followed by N distinct positive integers, one per line, indicating the exact period of revolution, R_i $(1 \leq R_i \leq 50)$, for each moon, in days.

Output Specification

For each of the T sets of data, generate a line of output indicating the interval in days between consecutive vertical alignments up to an absolute error of 10^{-2}.

Sample Input

```
3
2
20
30
3
20
30
40
2
10
3
```

Sample Output

```
60.00
120.00
4.29
```