

Problem F. Diary of Happiness

Time limit 1000 ms

Mem limit 262144 kB

Statement [Statements \(pt\)](#)

OS Windows

Gustavo de Medeiros is a guy who cares a lot about his health. Knowing that mental health is a very important topic, he decided to keep track of his days by using a diary. Each day, Gustavo writes an integer grade in the interval $[-10, 10]$ which reflects how he felt about that day. So, good days are days with a positive grade, bad days have negative grades and normal days have a grade of 0.

Gustavo registered the grade for the last n days and needs your help to determine what is the average of the grades.

Input

The first line has a positive integer number n ($n \leq 10^5$), the number of days that Gustavo registered its grade. The next line has a list of n integers, such that each of them is in the interval $[-10, 10]$, representing the grade of each day.

Output

Print the string ":" (without quotes), if the average of the grades is positive, ":|" if the average is zero, and ":(" if the average is negative.

Sample 1

Input	Output
5 10 10 10 10 10	:)

Sample 2

Input	Output
2 -1 1	:

Sample 3

Input	Output
3 1 2 -4	: (