

Statistics for an Athletic Association

Description:

You are the "computer expert" of a local Athletic Association (C.A.A.). Many teams of runners come to compete. Each time you get a string of all race results of every team who has run. For example here is a string showing the individual results of a team of 5 runners:

```
"01|15|59, 1|47|6, 01|17|20, 1|32|34, 2|3|17"
```

Each part of the string is of the form: `h|m|s` where h, m, s (h for hour, m for minutes, s for seconds) are positive or null integer (represented as strings) with one or two digits. Substrings in the input string are separated by `,` or `|`.

To compare the results of the teams you are asked for giving three statistics; **range, average and median**.

- **Range** : difference between the lowest and highest values. In $\{4, 6, 9, 3, 7\}$ the lowest value is 3, and the highest is 9, so the range is $9 - 3 = 6$.
- **Mean or Average** : To calculate mean, add together all of the numbers and then divide the sum by the total count of numbers.
- **Median** : In statistics, the median is the number separating the higher half of a data sample from the lower half. The median of a finite list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one (e.g., the median of $\{3, 3, 5, 9, 11\}$ is 5) when there is an odd number of observations. If there is an even number of observations, then there is no single middle value; the median is then defined to be the mean of the two middle values (the median of $\{3, 5, 6, 9\}$ is $(5 + 6) / 2 = 5.5$).

Your task is to return a string giving these 3 values. For the example given above, the string result will be

```
"Range: 00|47|18 Average: 01|35|15 Median: 01|32|34"
```

of the form: "Range: hh|mm|ss Average: hh|mm|ss Median: hh|mm|ss"

where hh, mm, ss are integers (represented by strings) with *each 2 digits*.

Remarks:

1. if a result in seconds is ab.xy... it will be given **truncated** as ab.
2. if the given string is "" you will return ""