Dickinson 2017: Dice

Consider a set of N dice with each die in the set having some number of sides (e.g. 4 sided, 8 sided and 20 sided). Each die may have a different number of sides. However, all dice are numbered from 1 to their number of sides (e.g. a 7 sided die has the number 1 through 7 on its sides). Given this set of N dice and the number of sides on each, compute the following values:

- The minimum total that can be obtained by rolling the set of dice.
- The maximum total that can be obtained by rolling the set of dice.

Input Format

Each line of the input file contains one instance of the problem, representing a set of dice. Each instance is a space-separated list of numbers. Each number is in the range [4, 100] and indicates the number of sides on one die in the set. Each set will consist of at least 2 die and at most 100 die. The input file is terminated by a line containing the single value -1.

Constraints

See above

Output Format

The output for each instance of the problem consists of 2 lines:

```
Minimum total: 12
Maximum total: 89
```

Sample Input 0

```
5 9 7 6
4 12 20 40 12 6
-1
```

Sample Output 0

```
Minimum total: 4
Maximum total: 27
Minimum total: 6
Maximum total: 94
```