To Probability

Challenge:

Problem Description:

You are given an array of `n` real numbers. Your task is to convert each element into a probability, where the sum of all elements in the output is 1. The formula is:

$$S(x_i) = \frac{e^{x_i}}{\sum_{j=1}^{n} e^{x_j}}$$

Input:

- The first line contains an integer `n`, representing the number of elements in the array.
- The second line contains `n` space-separated real numbers representing the array.

Output:

- Output `n` space-separated real numbers representing the softmax values, rounded to 6 decimal places.

Example:

Input:

```
3
1 2 3
```

Output:

```
0.090031 0.244728 0.665241
```