

Evaluating e^x

The series expansion of e^x is given by:

$$1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \dots$$

Evaluate e^x for given values of x by using the above expansion *for the first 10 terms*.

Input Format

The first line contains an integer N , the number of test cases.
 N lines follow. Each line contains a value of x for which you need to output the value of e^x using the above series expansion. These input values have exactly 4 decimal places each.

Output Format

Output N lines, each containing the value of e^x , computed by your program.

Constraints

$$1 \leq N \leq 50$$

$$-20.00 \leq x \leq 20.00$$

Var, *Val* in Scala and *def* and *defn* in Clojure are blocked keywords. The challenge is to accomplish this without either mutable state or direct declaration of local variables.

Sample Input

```
4
20.0000
5.0000
0.5000
-0.5000
```

Sample Output

```
2423600.1887
143.6895
1.6487
0.6065
```

Explanation

The output has the computed values of e^x corresponding to each test case. They are correct up to 4 decimal places and on separate lines.

Scoring

All test cases carry an equal weight in the final score. For your solution to pass a given test case, all the values of e^x computed by you must be within ± 0.1 of the expected answers. This tolerance level has been kept to account for slightly different answers across different languages.