Computing square roots and squares   P38045_en

Write a program that reads a sequence of natural numbers, and prints the square and the square root of each one.

Input

Input consists of a sequence of natural numbers.

Output

For every given number, print in a line its square, and its square root with six digits after the decimal point.

Observation

Use the procedure that your programming language already provides to compute square roots.

Sample input

```
4
2
1000
```

Sample output

```
16 2.000000
4 1.414214
1000000 31.622777
```

Problem information

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