

## Problem F. Circle

**Time limit** 1000 ms

**Mem limit** 131072 kB

**OS** Linux

Write a program which calculates the area and circumference of a circle for given radius  $r$ .

### Input

A real number  $r$  is given.

### Output

Print the area and circumference of the circle in a line. Put a single space between them. The output should not contain an absolute error greater than  $10^{-5}$ .

### Constraints

- $0 < r < 10000$

| Input | Output              |
|-------|---------------------|
| 2     | 12.566371 12.566371 |
| Input | Output              |
| 3     | 28.274334 18.849556 |