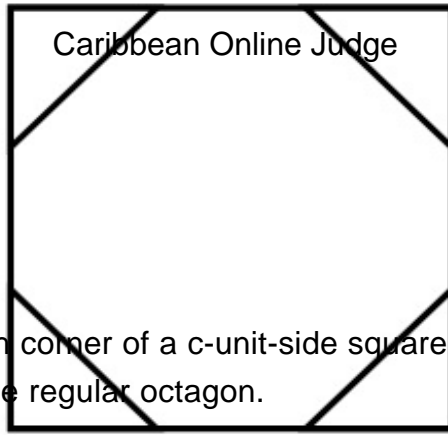## 2853 - Regular Octagon

Description

Cutting off a right triangle of each corner of a c-unit-side square, we can obtain a regular octagon. Your task is to find the area of the regular octagon.

Input specification

Each line of input contains an integer c (1 <= c <= 1000). The input ends with a line containing 0.

Output specification

For each input line output the area of the regular octagon with three decimal places.

Sample input

```
1
0
```

Sample output

```
0.828
```

Hint(s)

,

Source	TBA
Added by	**ldsierra**
Addition date	2014-04-24
Time limit (ms)	5000
Test limit (ms)	1000
Memory limit (kb)	256000
Output limit (mb)	64
Size limit (bytes)	15000

Enabled languages

Bash C C# C++ Java Pascal Perl PHP Python Ruby Text