5096 - Volume

Asia - Harbin - 2010/2011

This time your job is to calculate the volume of a special object. The object consists of two orthogonal cylinders. The two cylinders intersect each other in the middle place. One example is shown in Fig. 1. The radiuses of the bottom disk of both cylinders are *R*, and the heights of both cylinders are *H*.

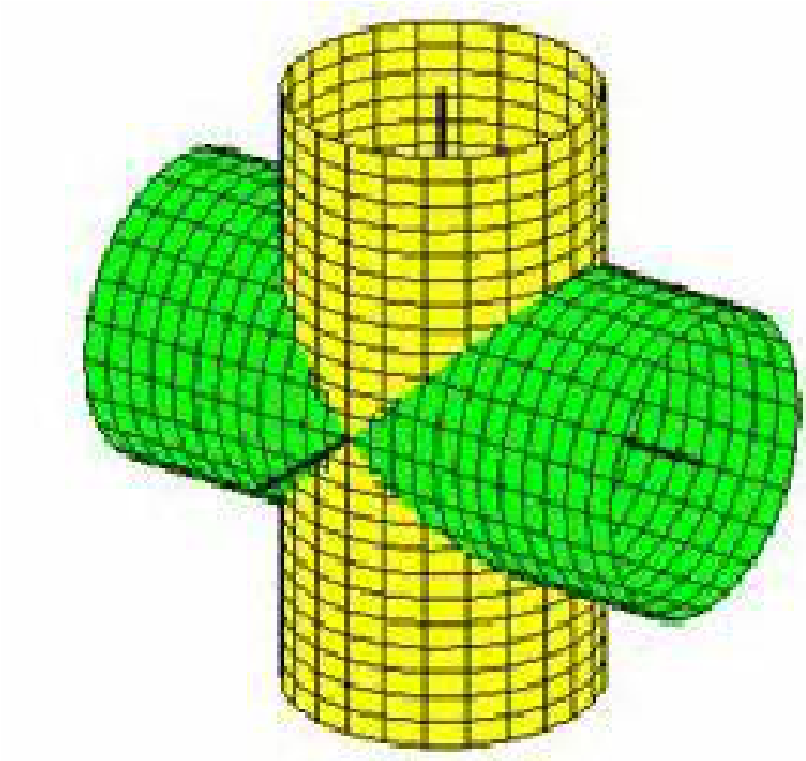

Fig.1 Two orthogonal cylinders

Input

We test the problem in many cases. Each case includes two integers, the first one is *R* and the second one is *H*. All the numbers given are positive integers and are less than 100.

Output

The output consists of the volumes. The results must be round to 4 decimal numbers. Remember that *R* may be less than half of *H*.

Sample Input

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10 30
10 40
```

Sample Output

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13516.2226
19799.4079
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