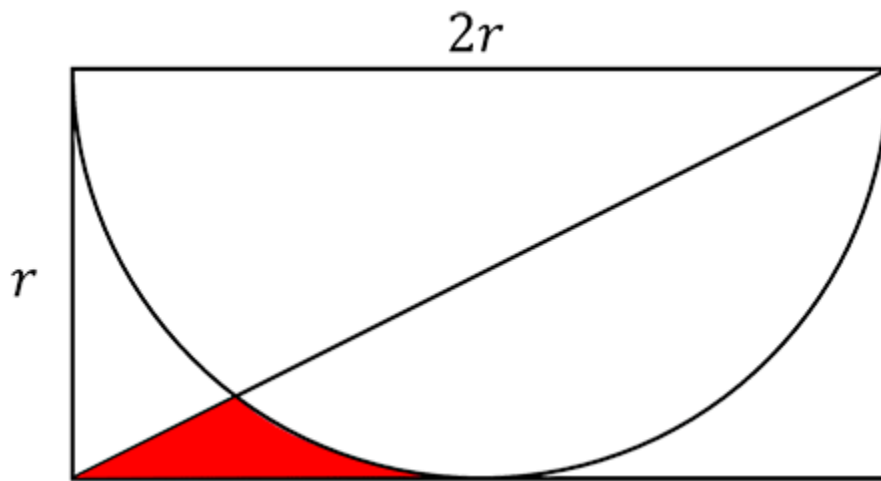


Area Calculator

This problem went viral in China, spreading on Weibo. The problem is to solve for the area shown in red between the semicircle and the rectangle's diagonal.

Create a function that takes a number r as an the length of the side and returns the area rounded to the nearest thousandth.



Examples

`redArea(0) → 0`

`redArea(4) → 1.252`

`redArea(25) → 48.906`

Notes

The input r is always a valid number.