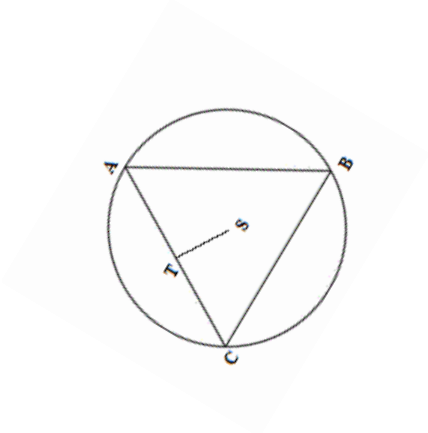
Mr. X & Driver Wheel

Time Limit – 1 seconds

Mr. X designs a new driver wheel.



ABC is an equilateral triangle inscribed in circle. **S** is the center of the circle. **ST** is perpendicular to **AC.** He has the circle & the triangle. He needs to bay a **vehicle horn** which length is equal to **ST.** He tells you the length of the sides of equilateral triangle and you tell him the length of **ST.**

Input :

The first line contains test case T(T<=10000).
Next line contains an integer **A.**
1<=A<=1000000

Output:
Output length of **ST** up to 4 digit after decimal point. (use %.4lf to print the result)

Sample Input	Sample Output
2 2 10	Case 1: 0.5774 Case 2: 2.8868