BUBT Intra University Programming Contest(2019)

Problem B (discussion)

Presented by
Team Wave

B. A Cow in a Rectangular Field

Problem Setter: Abu Obaida Opu

Software Engineer, SDSL, Ex: Dept. of CSE, Bangladesh University of Business and Technology (BUBT

A poor farmer has a land and only one cow. He used to feed his cow in the land every day. His land is a rectangular space and he has a rope of fixed length to tie his cow, so the cow used to eat grass within this range, thus the eaten area forms a circle within the field. Given the length of rope your task is to calculate the area that the cow eats.

Input

Input starts with a integer T(T<200) denoting the number of test case. Then T lines follow. Each line contains a integer R(1<=R<=1000) denoting the length of rope.

Output

For each test case print the area that the cow eats. Print six digits after decimal point. You can assume that pi is 3.1416.

Samples

Input

```
2
4
9

```

Output

```
50.265600
254.469600

```

Limits

Language	Time	Memory
GNU C 11	1s	512MB
GNU C++ 14	1s	512MB

Submissions

GNU C++ 14 — Accepted

Select Theme: Choose Theme

Select Language: GNU C++ 14

```
#include<stdio.h>
int main()
{
    //code
}
```

SUBMIT

Problem B

A Cow in a Rectangular Field

Input: standard input **Output:** standard output
Time Limit: 1 second

Problem Statement:

A poor farmer has a land and only one cow. He used to feed his cow in the land every day. His land is a rectangular space and he has a rope of fixed length to tie his cow, so the cow used to eat grass within this range, thus the eaten area forms a circle within the field. Given the length of rope your task is to calculate the area that the cow eats.

Input:

Input starts with a integer T(T<200) denoting the number of test case. Then T lines follow. Each line contains a integer R(1<=R<=1000) denoting the length of rope.

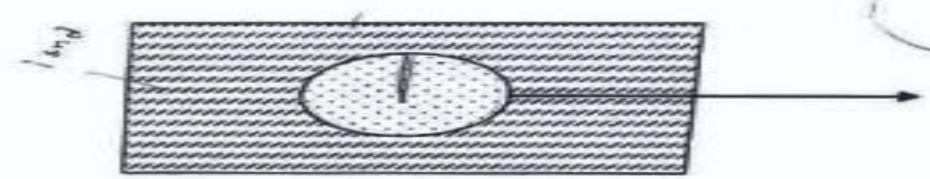
Output:

For each test case print the area that the cow eats. Print six digits after decimal point. You can assume that pi is 3.1416.

Sample Input/Output:

Sample Input	Sample Output
2	50.265600
4	254.469600
9	

Example Figure of Sample Input case 1:

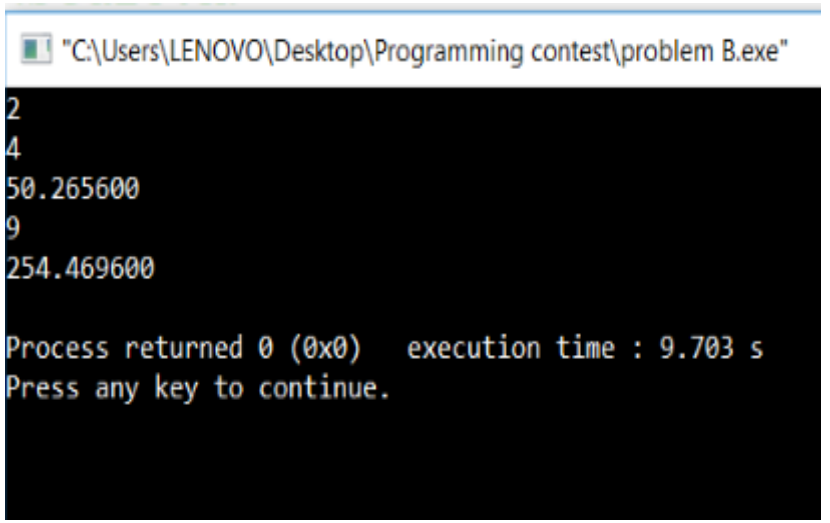


Assume that, the value of pi is 3.1416

Source code:

```
#include<stdio.h>
int main()
 {
     int  r,t,i;
     double pie=3.1416;

scanf("%d",&t);
for (i=1;i<=t;i++)
{
     scanf("%d",&r);

     double result= pie *r *r;

printf("%.6lf\n",result);

}
return 0;
}
```

Output:



Happy Coding!