

**Birla Institute of Technology & Science, Pilani, K. K. BIRLA Goa Campus**  
**Computer Programming (CS F111)**  
**Second Semester 2013-2014**  
**Lab-5 (C Programming)**

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**Question #1**

Write a menu driven program to calculate area and perimeter of Square, Rectangle, Kite, Circle

**Square**

Area :  $S=a^2$

Perimeter :  $L=4a$

**Rectangle**

Area :  $S=ab$

Perimeter :  $L=2(a+b)$

**Kite**

Area :  $S=d_1d_2/2$

Perimeter :  $L=2(a+b)$

**Circle**

Area :  $S=3.14*R^2$

Perimeter :  $L=2*3.14*R$

**Sample Input:**

S for Square, R for Rectangle, K for Kite and C for Circle

Choose a Geometry: S

Input side of the square: 5

**Output:**

Area of square=25.000000

Perimeter of square=20.000000

**Sample Input:**

S for Square, R for Rectangle, K for Kite and C for Circle

Choose a Geometry: X

**Output**

Invalid Selection! Please try again.

**Sample Input:**

S for Square, R for Rectangle, K for Kite and C for Circle

Choose a Geometry: C

Input radius of the circle: 2.5

**Output**

Area of Circle: 19.625000

Perimeter of Circle: 15.700000

## Question #2

Madison Avenue Marketing Group has recruited 12 applicants as trainees. They will have to go through a 12 month training period where their performance will be evaluated and will be determined if they become permanent employees. They will also receive a stipend during the period which depends on their performance. At the end of every month - each of them receives a Performance Index (PI) every month and they can hence find their stipend accordingly.

```
[0-1) - Print : You are being fired.  
[1-3) - Print : On Probation. Need to have a PI of 8+ to stay in  
company. No Stipend this time.  
[3-5) - Stipend : 10000 INR  
[5-8) - Stipend : 18000 INR  
[8-9) - Stipend : 26000 INR  
[9-10)- Stipend : 32000 INR  
10     - Print : Congratulations on becoming Employee. Stipend :  
40000 INR + Joining Bonus.  
        Joining Bonus : 10000 INR
```

Write a program for the same. The input will be the PI. The output will be according to above conditions

### Sample Input:

Enter your PI : 5.2

### Output:

Stipend : 18000 INR

### Sample Input:

Enter your PI : 1.0

### Output:

On Probation. Need to have a PI of 8+ to stay in company. No  
Stipend this time.

### Sample Input:

Enter your PI : 11.0

### Output:

Invalid PI value

### Sample Input:

Enter your PI : 10.0

### Output:

Congratulations on becoming Employee.  
Stipend : 40000 INR + 10000 INR