CS4051 Fundamentals of Computing

Lab work – week 9

1. Create a class named Circle having two attributes diameter and radius. Create the initializer/constructor method for the class which initializes the two variables diameter and radius. The class should also have a method which returns the area of the circle. Create 2 instances of the class and run the class methods.

```
c1 = Circle(4) # constructor takes only the diameter
print(c1.area()) # prints out the area of the circle
```

2. Create another class named Rectangle having two attributes length and breadth. Create the initializer/constructor method for the class which initializes the two variables. The class should have two methods, one to calculate the area of the rectangle and another which calculates the perimeter of the rectangle. Create 2 instances of the class and run the class methods.

```
r = Rectangle(2, 2) # constructor takes length & breadth
print(r.area()) # prints out the area
print(r.perimeter()) # print out the perimeter
```