

## Circle Calculator 2.0

Create a program that calculates the area of a circle by creating user-defined functions as per the instructions below.

Note: **Bold** words are output while non-bold words are input in the following console sample.

### Console Sample

```
Circle Calculator 2.0  
  
Enter radius: 1  
Diameter: 2  
Circumference: 6.28318  
Area: 3.14159
```

### Specifications

- Declare and define a function accepting radius as the argument and returning the calculated diameter as the result. The formula to calculate the diameter of a circle is:  
**diameter = 2 \* radius**
- Declare and define a function accepting diameter as the argument and returning the calculated circumference as the result. The formula to calculate the circumference of a circle is:  
**circumference = diameter \* 3.14159**
- Declare and define a function accepting radius as the argument and returning the calculated area as the result. The formula to calculate the area of a circle is:  
**area = 3.14159 \* radius \* radius**
- Declare and define a function returning nothing but accepting diameter, circumference and area as the arguments and displaying them in the console.
- All the above user-defined functions must be called in the *main()* in the appropriate positions.
- The program should accept decimal entries like 35.5 and 14.25.
- Assume the user will always enter a valid number as the input of the radius.