

## Problem Set 1 Exercise #07: Surface Area and volume of Sphere

**Reference:** Lecture 2 notes

**Learning objectives:** Program structure; Math functions

**Estimated completion time:** 15 minutes

### Problem statement:

Write a program **sphere.c** to read the diameter (of **double** type) of a sphere, print out its surface area and volume.

Google the formula to compute the surface area and volume of a sphere.

Use 3.1415 as the value for  $\pi$  and correct your output of real numbers to three decimal places.

Two sample runs are shown below, with user input highlighted in **bold**.

### Sample run #1:

```
Enter diameter: 2
Surface area = 12.566
Volume = 4.189
```

### Sample run #2:

```
Enter diameter: 5.4
Surface area = 91.606
Volume = 82.446
```