

```
1 //
2 // Given a radius (100) of a sphere,
3 // to compute its surface area and volume.
4 //
5 // Created by hengxin on 10/10/21.
6 //
7 // Terminal: gcc sphere.c -o sphere -lm
8 // CMake: target_link_libraries(admin m)
9 //
10
11 #include <math.h>
12 #include <stdio.h>
13
14 int main() {
15     const double PI = 3.14159;
16     int radius = 100;
17
18     double surface_area = 4 * PI * radius * radius;
19     double volume = 3.0 / 4 * PI * pow(radius, 3);
20
21     /**
22      * Basic output
23      * 125663.600000 : surface_area
24      * 2356192.500000 : volume
25      */
26     printf("%f : surface_area \n%f : volume\n",
27            surface_area, volume);
28
29     /**
30      * Expected output:
31      * 125663.6000      : surface_area
32      * 2356192.5000     : volume
33      */
34     printf("%-15.4f : surface_area \n%-15.4f :
35            volume\n", surface_area, volume);
36 }
37
```