

```
//
//  main.swift
//  Spheres
//
//  Created by Aaron Anderson on 6/29/15.
//  Copyright (c) 2015 Aaron Anderson. All rights reserved.
//

import Foundation

func sphereSurfaceAreaWithRadius(sphereRadius: Double) -> Double {
    let  $\pi$  = M_PI
    return 4 *  $\pi$  * pow(sphereRadius, 2)
}

func sphereVolumeWithRadius(sphereRadius: Double) -> Double {
    let  $\pi$  = M_PI
    return (4/3) *  $\pi$  * pow(sphereRadius, 3)
}

func outputSphereCalculations(sphereRadius: Double) {
    println("Sphere")
    println("=====")
    println(String(format: "Radius: %.1f", sphereRadius))
    println(String(format: "Surface: %.10f", sphereSurfaceAreaWithRadius
        (sphereRadius)))
    println(String(format: "Volume: %.10f", sphereVolumeWithRadius(sphereRadius)))
}

func calculateSphereVolumeAndSurfaceArea() {
    outputSphereCalculations(12.6)
    outputSphereCalculations(75)
    outputSphereCalculations(4.5)
}

calculateSphereVolumeAndSurfaceArea()
```