



**SCHOOL OF PRE-UNIVERSITY STUDIES
FOUNDATION PROGRAMMES**

**WRITTEN TEST 1 (SET 3)
AUGUST 2022 SEMESTER**

MODULE NAME : INTRODUCTION TO ALGORITHM

MODULE CODE : ITS30705

TIME : 1 HOUR

This paper consists of FOUR(4) printed pages.

Student Name

Student ID

Tutorial Group

Instruction to Candidates:

1. Answer all questions in the paper and the answers are to be written in either black or dark blue pen.
2. This is a closed book examination, no notes are permitted.
3. Non-programmable electronic calculators may be used.
4. Severe disciplinary action will be taken against those caught violating examination rules.

**DO NOT TURN THIS PAGE UNTIL INSTRUCTED TO DO SO.
TO BE RETURNED AT THE END OF THE TEST.**

Question 1

Create a program that ask for a radius of a sphere. The radius is pass to a function that calculate surface volume and area of a sphere and return both value so that both can be displayed in the program. (Note: A sphere is a perfectly round geometrical object in three-dimensional space that is the surface of a completely round ball). Complete:

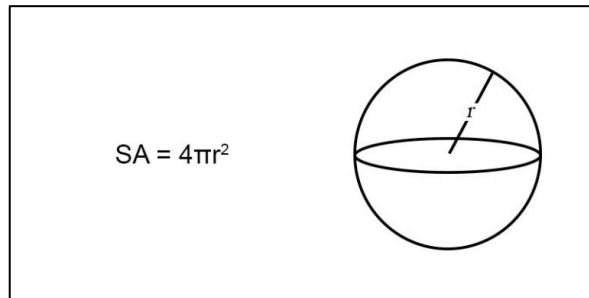


Figure 1: Surface Area of Sphere.

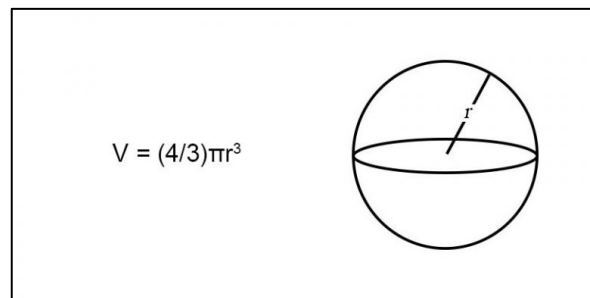


Figure 2: Volume of Sphere

Given:

`radius_sphere = 7`

Expected output:

```
Surface Area is : 615.75216
```

```
Volume is : 1436.75504
```

a) The pseudocode of the program

(5 marks)

b) The flowchart of the program

(5 marks)



c) The code of the program

(5 marks)



Question 2

Write a program to check whether a person is senior citizen or not. (Note: The age for senior citizen is 60 and above). (5 marks)

--- END OF TEST PAPER ---