



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

**WRITTEN TEST 1 (SET 1)
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

Diagram 1 shows the formula to calculate the arc of a circle.

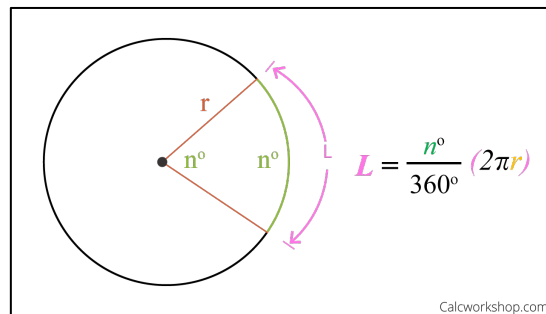


Figure 1: Calculate the arc of a circle

Create a program to calculate the arc of a circle. The program accepts radius of a circle and angle measure. Both inputs are passed to a function that calculate arc length of an angle and return the value to be displayed in the program. Complete:

- 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

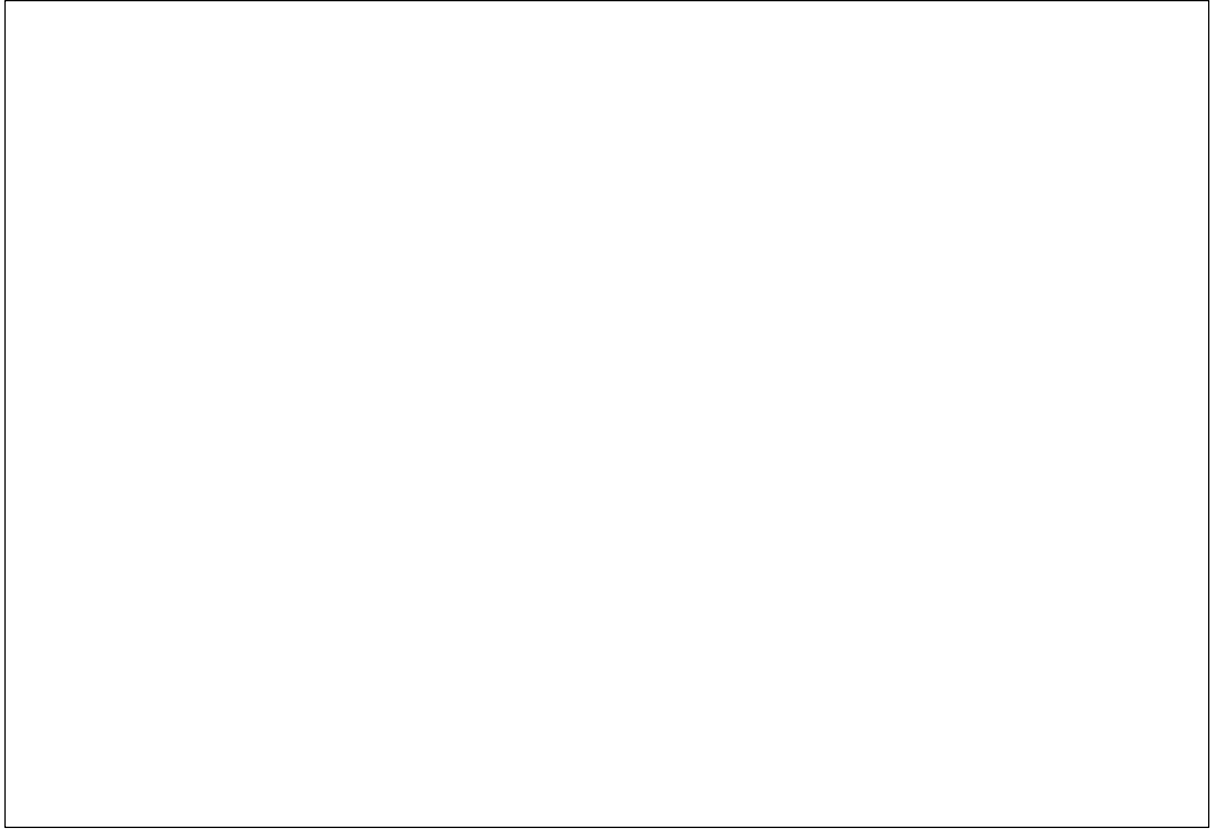
Create a program that accept an integer number. The integer number is pass to a function that returns whether the number is even or odd and display back in the program.

Given:

```
Enter a number = 4
```

Expected output:

```
4 is an even number
```



--- END OF TEST PAPER ---