

## Week 2 – Exercises

### A. Notes: input/output statement

```
input1 = "James"
input2 = "Mary"
input3 = "Sally"
input4 = 123

print("hello")
print("Good Morning")
print("Good Morning", input1)
print("Good Morning" + input2)
print("Good Morning %s" % input3)
print("Today looks cloudy")
print("""This is a Python Module.
There will be a final exam and group assignment for this module""")
```

### B. Questions

Answer all the following problems. Please use various print() functions as above. Create and compile your answers in the .doc file.

1. Write a pseudocode and write a python code to calculate area of rectangle.

Start

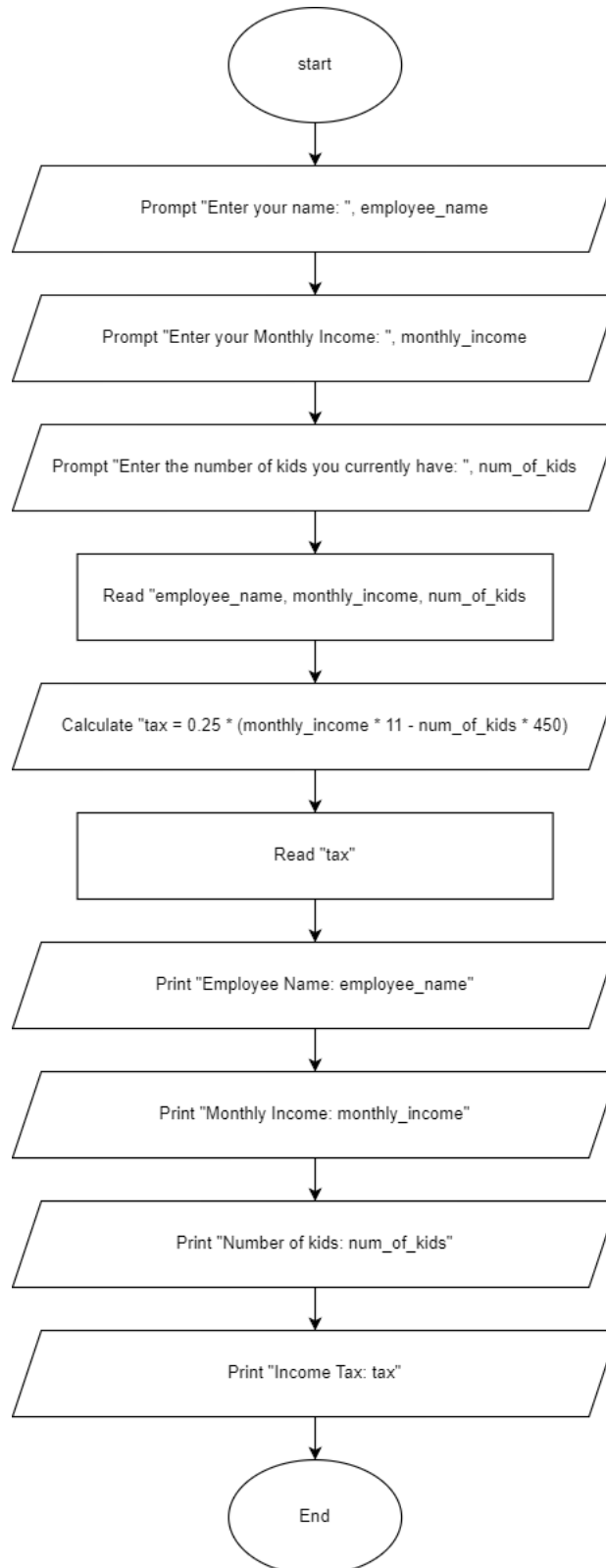
```
Declare "length, width, area"
Prompt "Enter the length of the rectangle", length
Prompt "Enter the width of the rectangle", width
Read "width, length"
Calculate "area = width * length"
Read "area"
Print "The area of the rectangle is: {area}"
```

End

2. Draw a flowchart and write a python code to calculate employee income tax based on the following formula:

$$\text{Tax} = 0.25 * (\text{monthly income} * 11 - \text{number of kids} * 450)$$

Your program will display the name of the employee and amount of tax on the screen.



3. Write a pseudocode and a write a Python code to receive an integer from the user, add 5 to it, double it, subtract 7 from it, and display the final number on the screen.

Start

Declare num1, final\_num

Prompt "Enter a number: ", num1

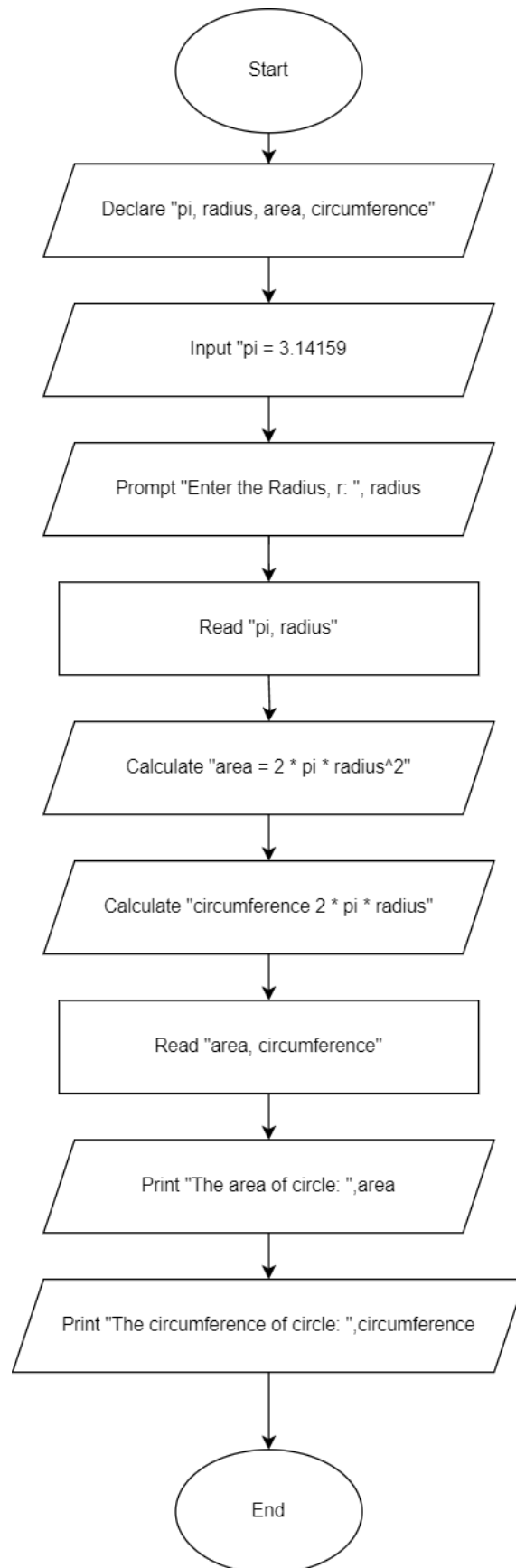
Calculate "final\_num = (num1 + 5) \* 2 - 7"

Read "num1, final\_num"

Print "final\_num"

End

4. Draw a flowchart and write a Python code to calculate area and circumference of circle.



5. Write a pseudocode and write a Python code to calculate and print the average of three numbers: 20, 10, and 2.

Start

Declare “num1, num2, num3 avgNum”

Input “num1 = 20, num2 = 10, num3 = 2”

Calculate “avgNum = (num1 + num2 + num3) / 3

Print “The average number of the three numbers is: avgNum”

End