

1. Write a simple algorithm for finding the maximum of three numbers using pseudo code.

START

READ num1,num2,num3

IF num1>=num2 AND num1>=num3 Then

 maxi=num1

Elseif num2>=num1 AND num2>=num3 Then

 maxi=num2

Else

 maxi=num3

EndIf

Return maxi

END

2. Compare and contrast two different programming languages, highlighting their strengths and weaknesses.

Java and Python

Java strengths:

1. Java is object oriented programming language
2. Java is used to build mobile applications and web applications
3. Java has option of code reusability

Java weakness:

1. Java requires large memory space
2. Memory management is hard with Java

Python strengths:

1. Python has simple and easy syntax that can be easily understandable

2. Declaration of variables is not necessary

3. python is platform independent

python weakness:

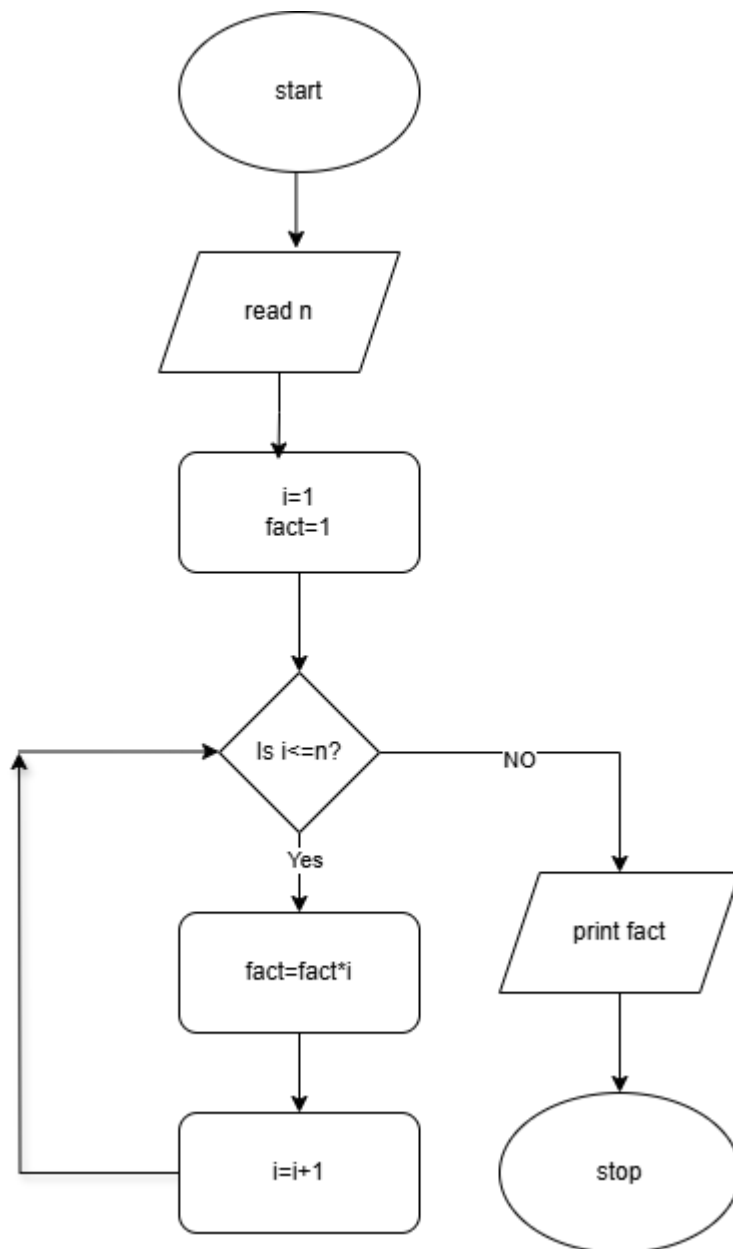
1. It is slow compared to c

2. python requires high memory consumption

3. Explain the compilation process and how it differs from interpretation.

A compiler translates the entire source code into machine code before execution, while an interpreter translates and executes code line by line during runtime

4. Create a flowchart for a program that calculates the factorial of a given number.



5. Write a function in your preferred programming language to calculate the area of a rectangle.

```
def area_rectangle(l, b):  
    return l * b
```

```
length = int(input())  
breadth = int(input())  
print(area_rectangle(length,breadth))
```