

Types of Languages

Procedural

Functional

Object Oriented

1] Procedural -

- Specifies a series of well-structured steps and procedures to compose a program
- Contains a systematic order of statements, function and commands to complete a task.

2] Functional -

- Writing a program only in pure function i.e., never modify variable but only create new ones as an output.
- Used in situations where we have to perform lots of diffⁿ operations on the same set of data, like ML.
- First class function.

3] Object Oriented -

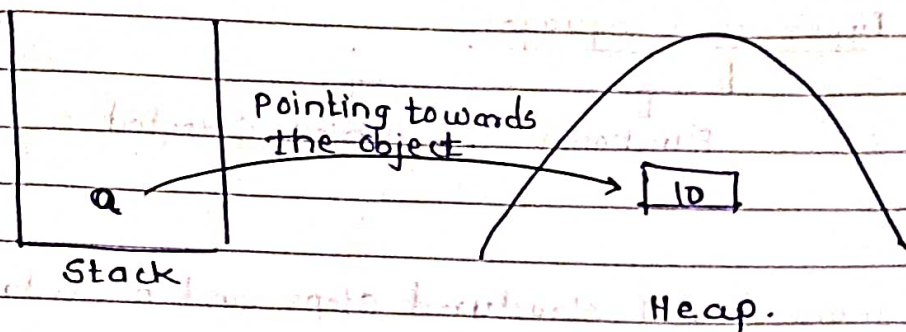
- Revolves around objects.
- Code + Data = object.
- Developed to make it easier to develop, debug, reuse and maintain software. Ex. Java, Python, C, C++.

Static

vs

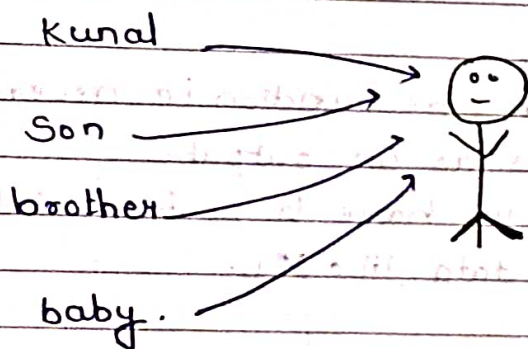
Dynamic Language.

- | | |
|---|---|
| - Perform type checking at compile time | - Perform type checking at run time |
| - Errors will show at compile time | - Errors might not show till pg. is run |
| - Declare datatype before you use it | - No need to declare datatype of var. |
| - more control | - Saves time in writing code but might give error at runtime. |

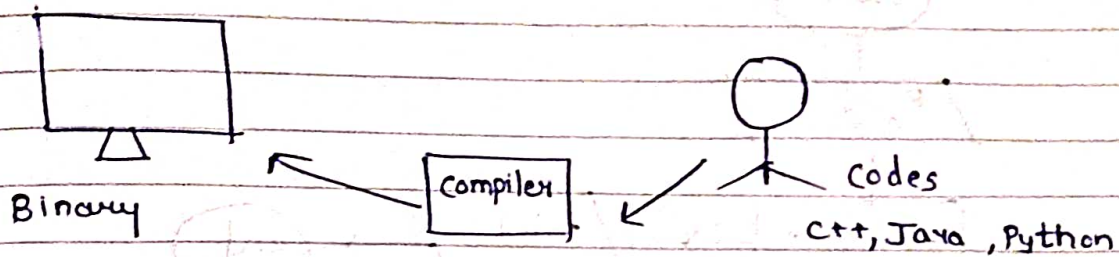


$a = 10$
↓
ref variable → object.

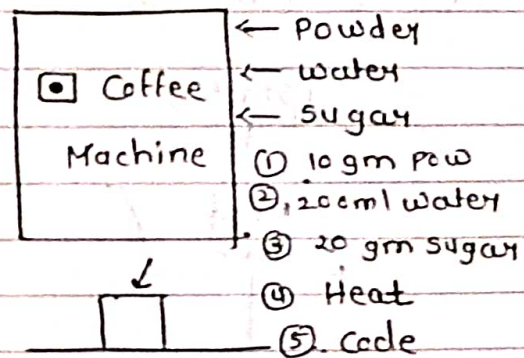
Name = "Kunal"

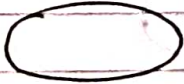



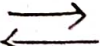


$a = [1, 3, 5, 9]$
↙
 $b = a$

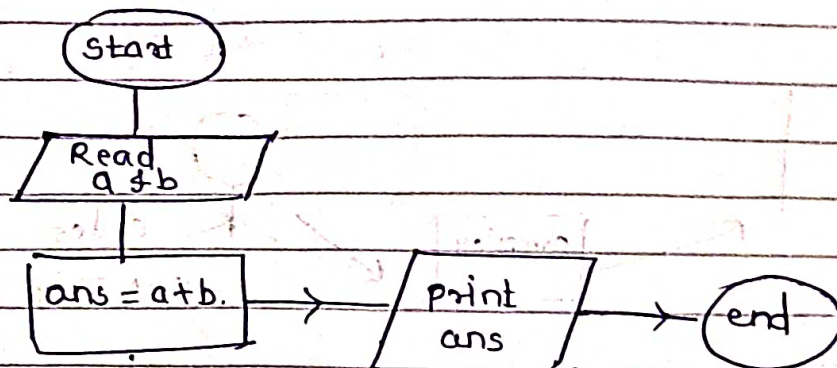
Flowchart & PseudoCode-

- ① Understand
- ② Given value
- ③ Approach
- ④ Code
- ⑤ Error / debug
- ⑥ Other Solution

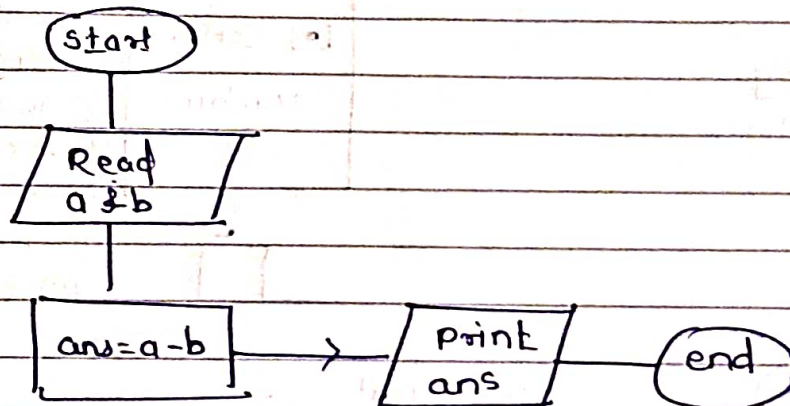


- ①  Terminal (Start & end)
- ②  Parallel (I/P, O/P)
- ③  Process
- ④  Decision
- ⑤  Arrow

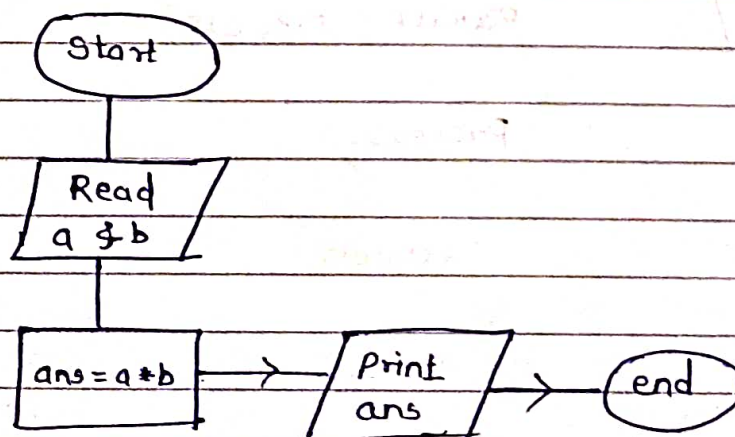
Q. Sum of 2 no. ($a+b=ans$)
($2+3=5$)



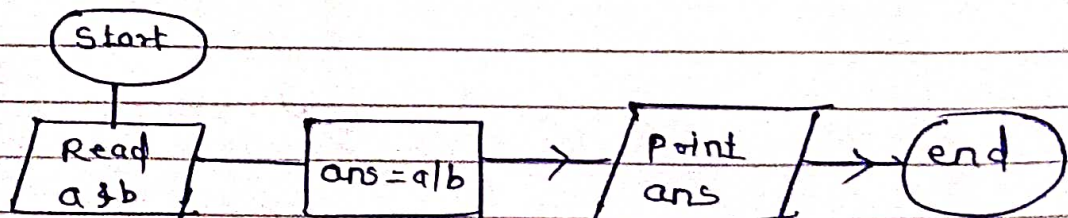
Q. Sub 2 two no.



Q. Product of 2 two no.

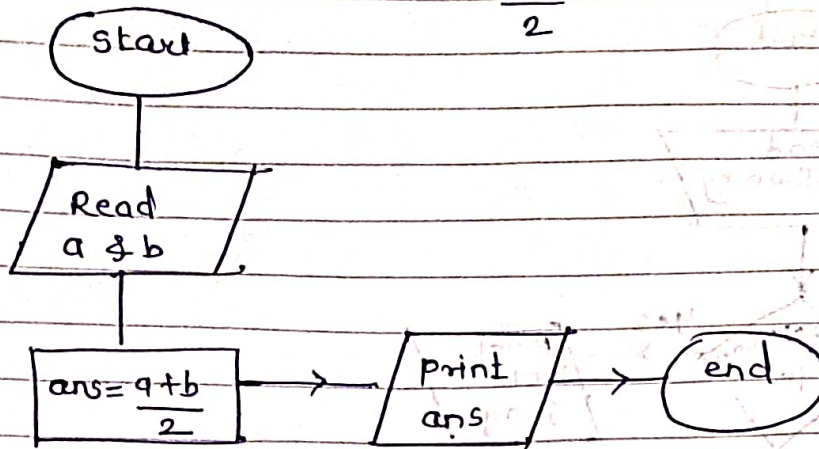


Q. Divide two no.



Q: Avg of two No.

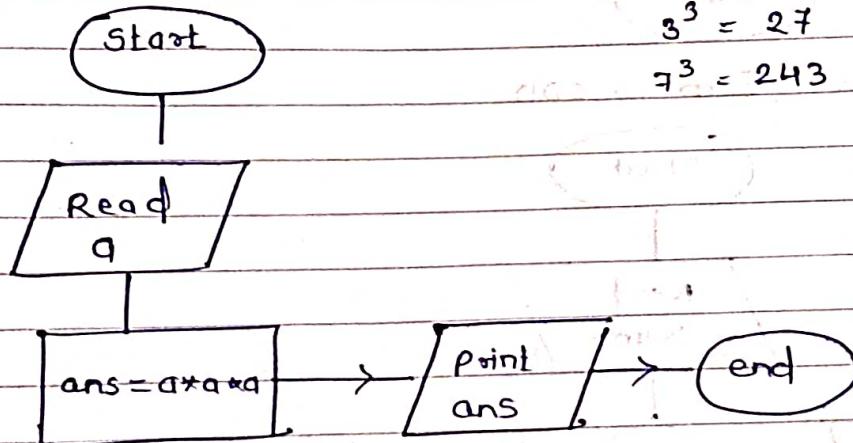
$$\frac{a+b}{2}$$



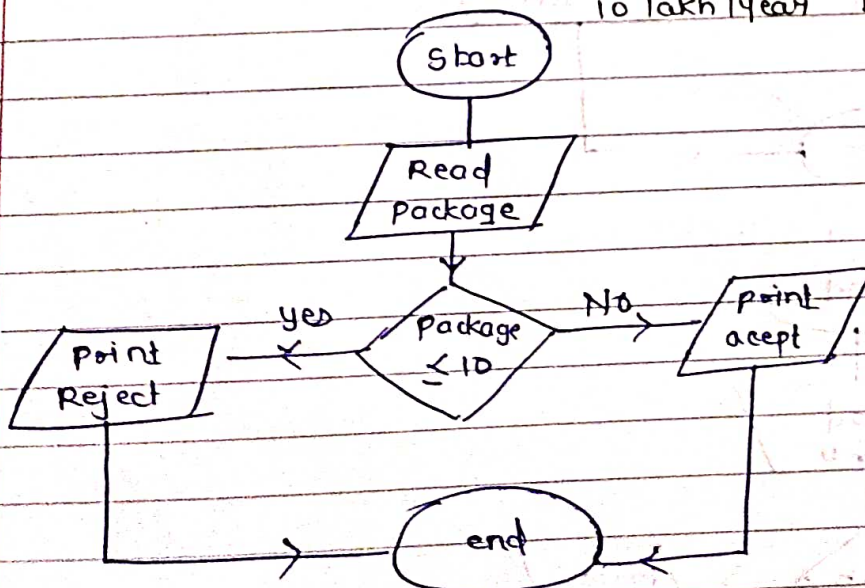
Q: find cube of a number.

$$3^3 = 27$$

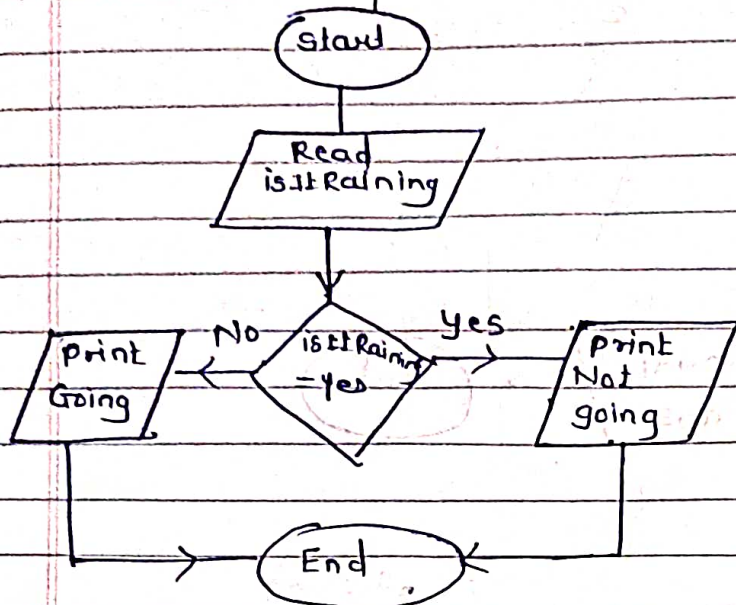
$$7^3 = 243$$



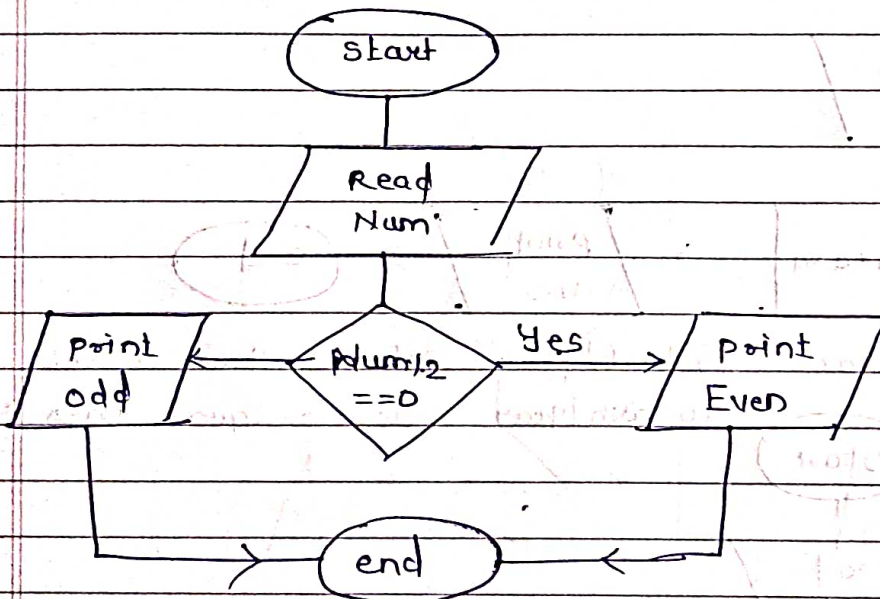
Q: MNC - Interview Crack. 10 lakh/year above then Accept
10 lakh/year below or equal then Reject.



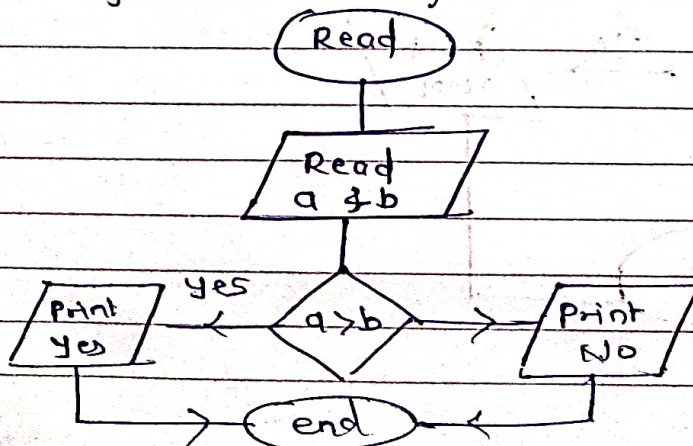
Q Outside Raining Condition-



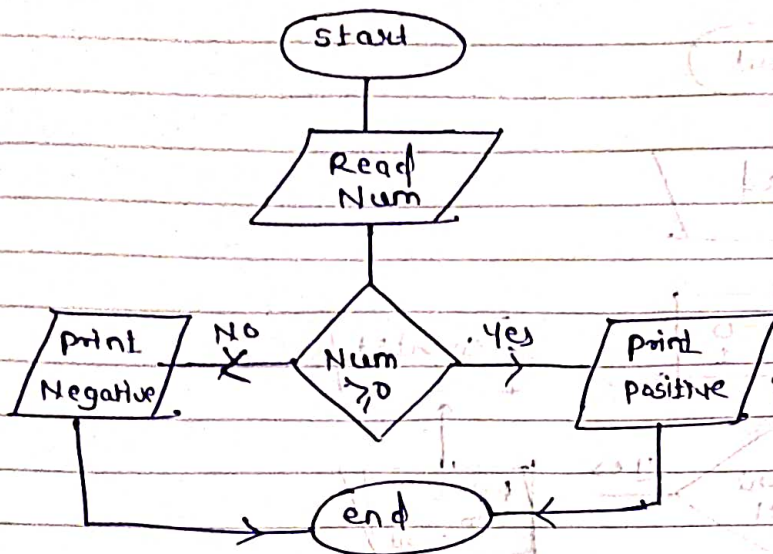
Q Number Even or ODD



Q Print greater No in a & b.



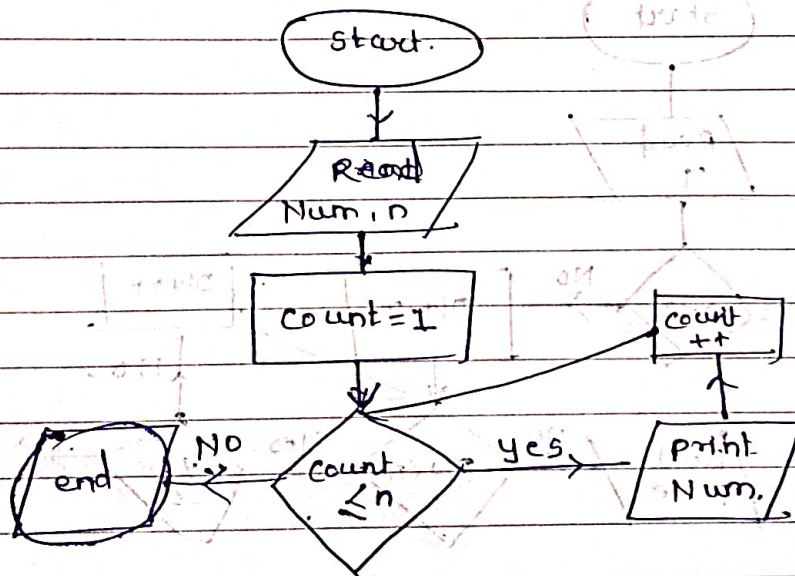
Q: Check the Number is +ve or -ve.



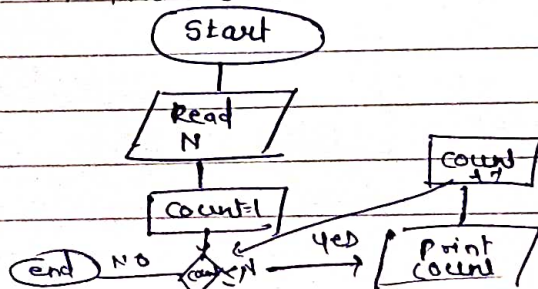
Loop Concept-

Do the same Task Repeatedly use the Loops.

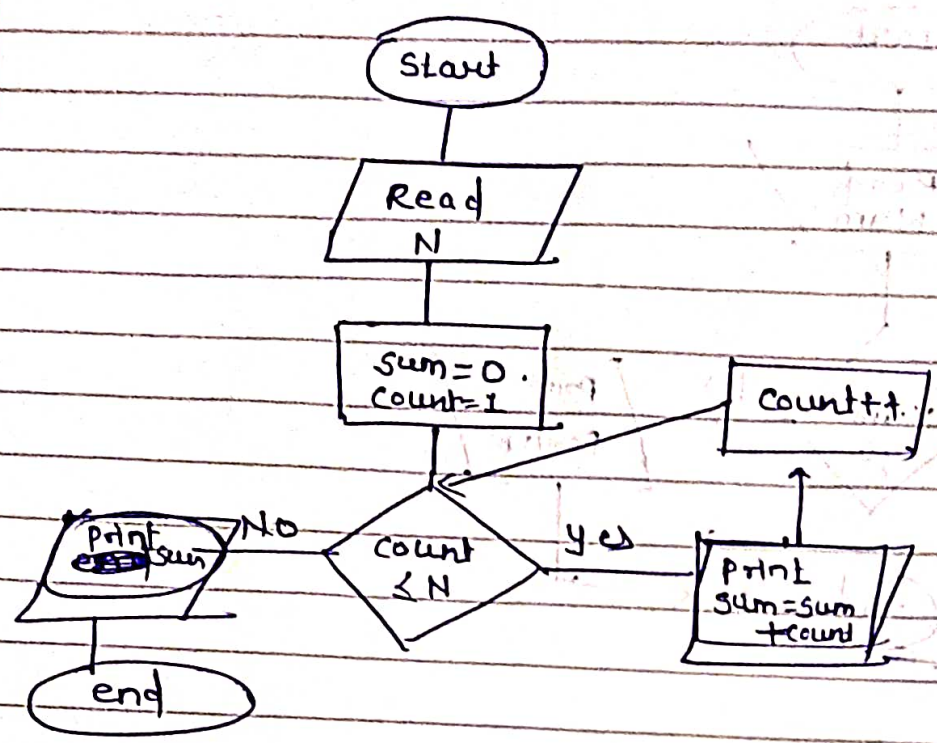
Q: Print the Num 10 times.



Q: Print 'N' Natural NO.



Q. Sum of 'N' Natural Numbers.



Q. Given Number is Prime or Not.

