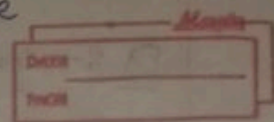


- 1) more than 1 reference variable can point to the same object
- 2) if any one of the reference variable is changed the object then original object is going to be changed. (and going to be changed for all).



flow disⁿ of program →

FLOWCHARTS

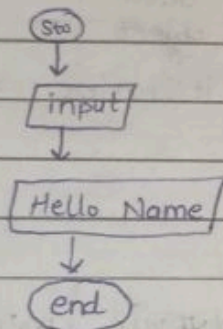
Start / Stop → ○

input / output → □

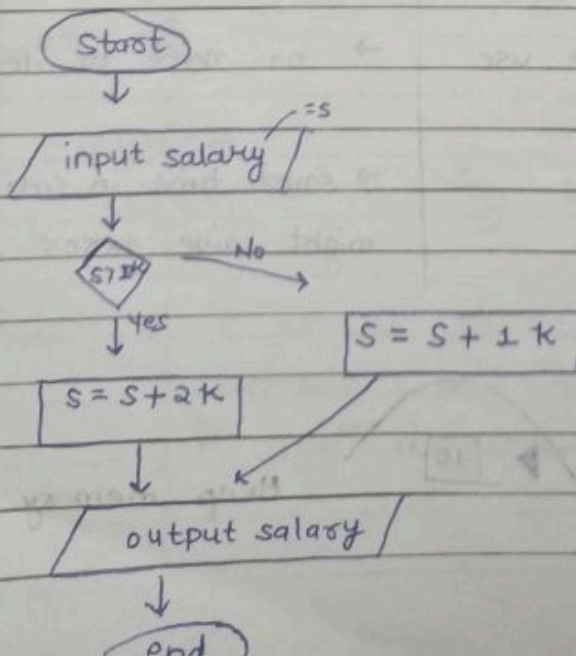
Processing → □

condⁿ → ◇

Que → Take a name and output Hello Name?



Que-2 → Take input of a salary. If the salary is greater than 10,000 add bonus as 2000, otherwise add bonus as 1000?



Pseudo code

```

start
input salary
if salary > 10000
    salary = salary + 2000
else
    salary = salary + 1000
output salary
exit
  
```

Que 3

Input a no. and print whether it is prime or not

divisible by 1 or no. itself.

DATE
PAGE

pseudo code

input no.

$c = 2$ or $c \leq n$

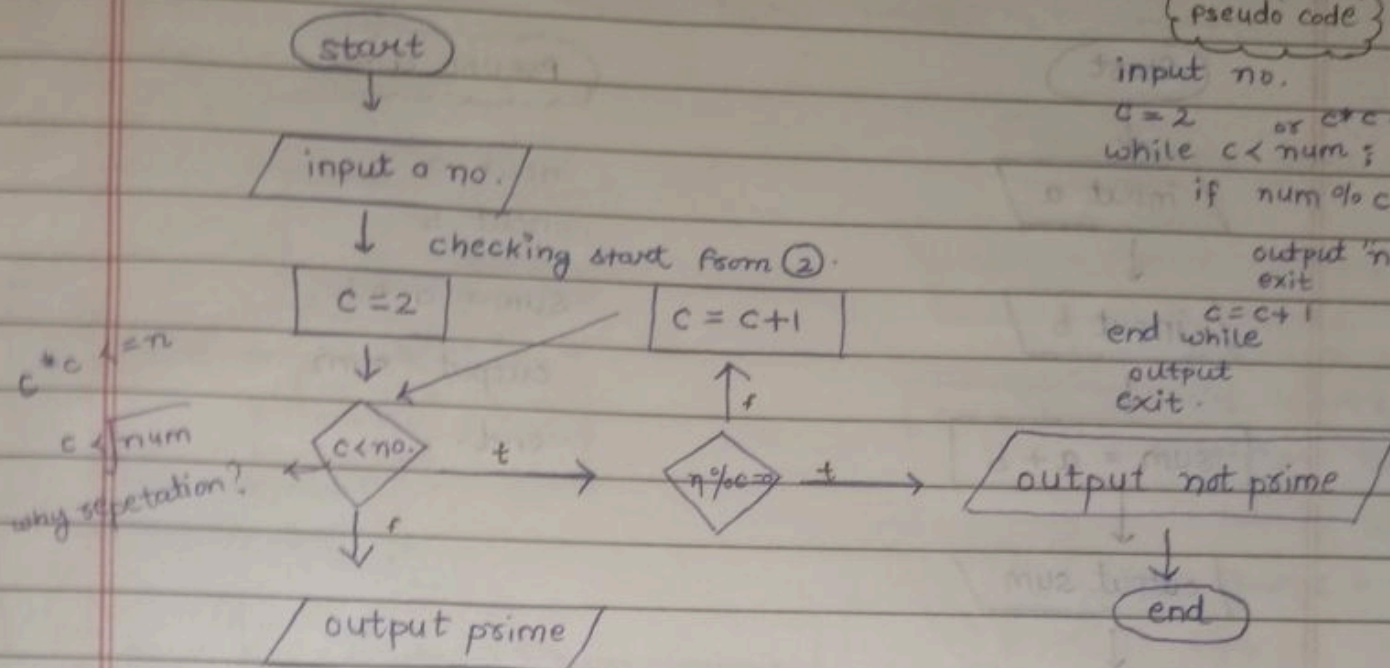
while $c \leq \text{num}$;

if $\text{num} \% c = 0$

output "not prime"
exit

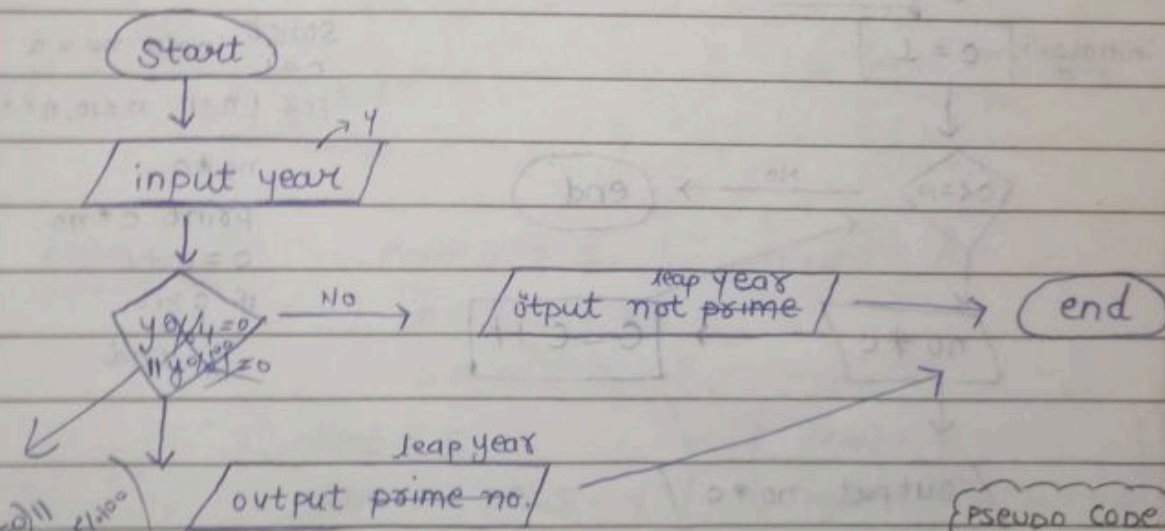
$c = c + 1$
end while

output
exit.



ASSIGNMENT - FLOW OF CHARTS :- 20 / Flow PSEUDO CODE

1) Take input a year and find whether it is leap year or not



Pseudo Code

start

input year

if $(\text{year} \% 4 = 0)$

output leap year

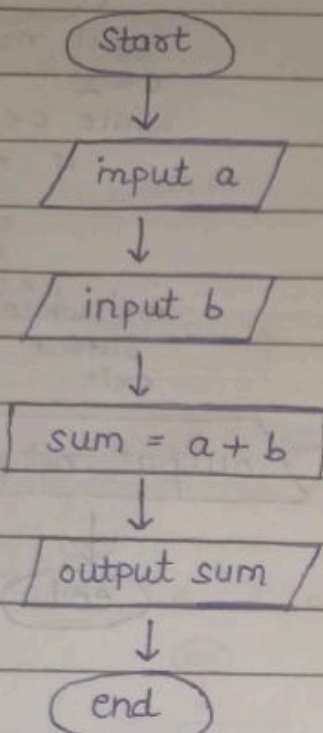
else

output not leap year

end

$(8 \% 4 = 0)$
 $(8 \% 100 \neq 0)$
 $(8 \% 400 \neq 0)$

2. Take 2 numbers and print the sum of both?

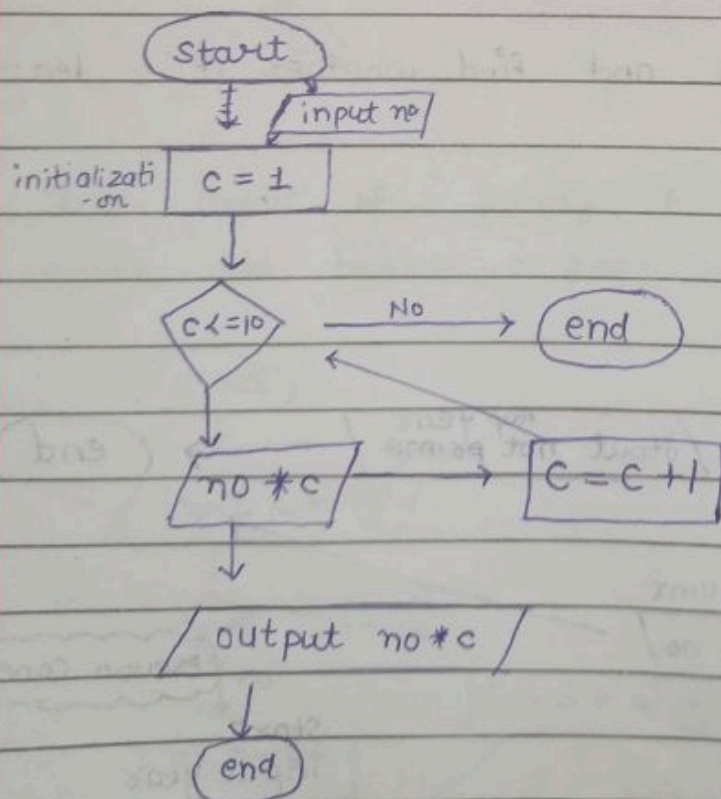


PSEUDO CODE

```

input a
input b
sum = a + b
output sum
end.
  
```

3. Take a no as input and print multiplication for it?

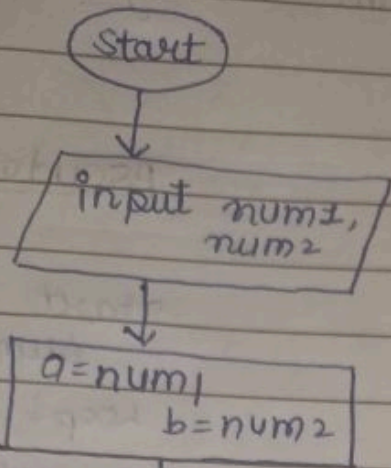


PSEUDO CODE

```

Start
input no = n
c = 1
for (n = 1, n <= 10, n++)
    no * c
    print c * no.
    c = c + 1
if c > 10
    end
  
```

4) Take 2 no. as input and find their HCF & LCM.



pseudo code

```

start
input num1, num2
a = num1
b = num2
while (num2 != 0)
    temp = num2
    num2 = num1 % num2
    num1 = temp
end
hcf = num1
LCM = (a * b) / hcf
Print HCF = ?
Print LCM
end
  
```

$$LCM = \frac{9 * 5}{1} = 45$$

example :-

num1 = 9 , num2 = 5

a = num1 = 9

b = num2 = 5

temp = 5
num2 = 9 % 5 = 4
num1 = 5

temp = 4
num2 = 5 % 4 = 1
num1 = 4

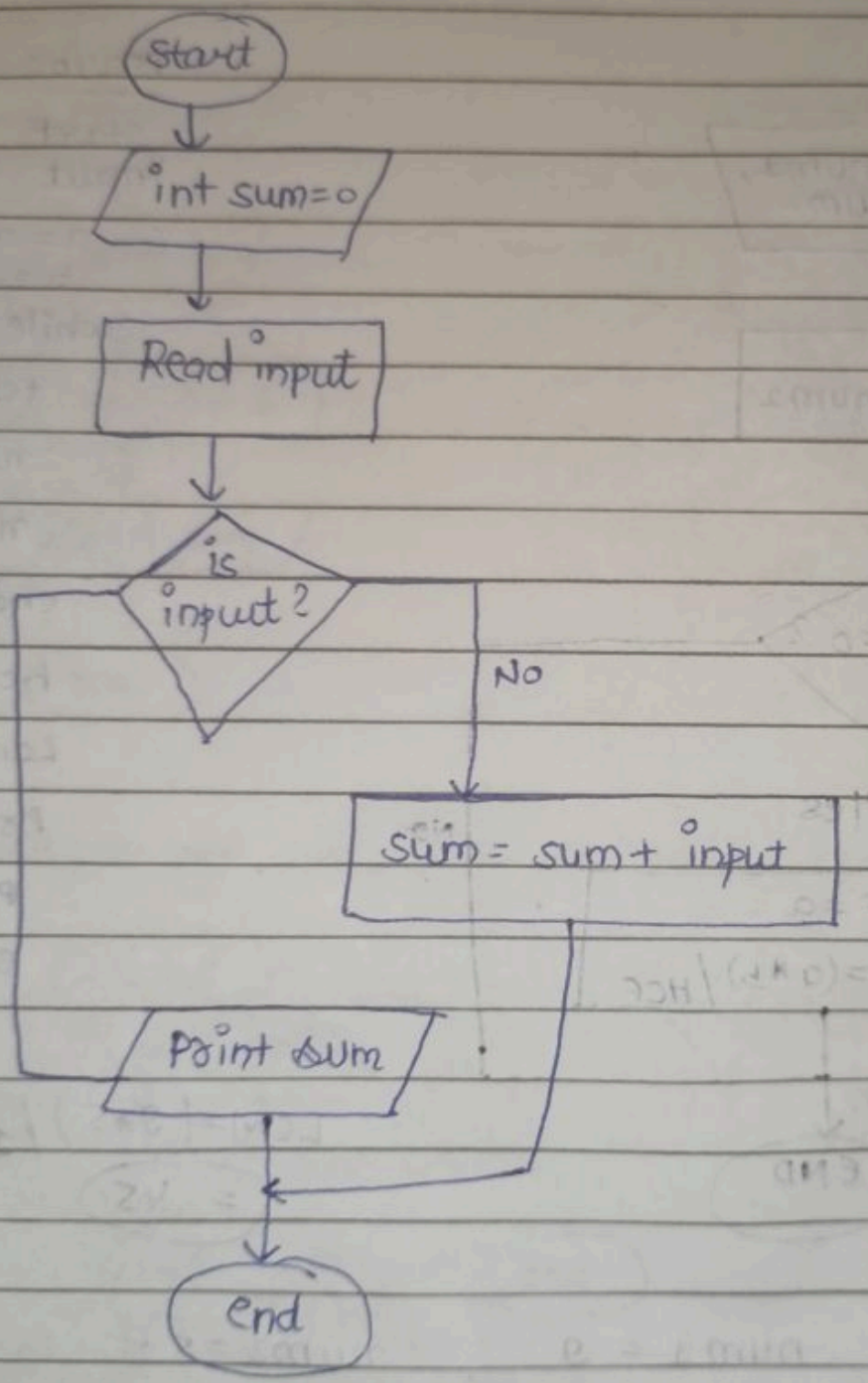
temp = 1
num2 = 4 % 1 = 0
num1 = 1

(num2 != 0) = 4

(num2 != 0) = 1

HCF = num1 = 1

5) Keep taking numbers as inputs till the users enters 'x' after that print sum of all.



Pseudo code

```

Start
sum = 0
Loop:
  Prompt user:
  Read input
  if input is 'x'
    break loop.
  Convert input to no.
  sum = sum + no.
end loop.
Print sum
end.
  
```