

7) Multiply 2 number by taking input

HW

start



Read a & b



mul = a * b



Print mul



end

Read a & b

mul = a * b

Print mul

8)

Find perimeter of triangle

HW

Read a, b & c

$$P = a + b + c$$

Print P

start



Read a, b & c



$$P = a + b + c$$



Print P



end

g) Simple Interest

HW

Read P, R & T

$$SI = (P * R * T)$$

start



100

Read P, R & T

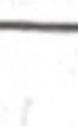


Print SI

$$SI = (P * R * T) / 100$$



Print SI



(end)

11) Print counting from n to 1

(HW)

(start)



Read n



$i^{\circ} = n$



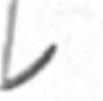
$i < 1$

Yes →

(end)

No

Print i



$i = i^{\circ} - 1$

1. Read n

2. $i^{\circ} = n$

3. if $i < 1$

exit

4. else print i

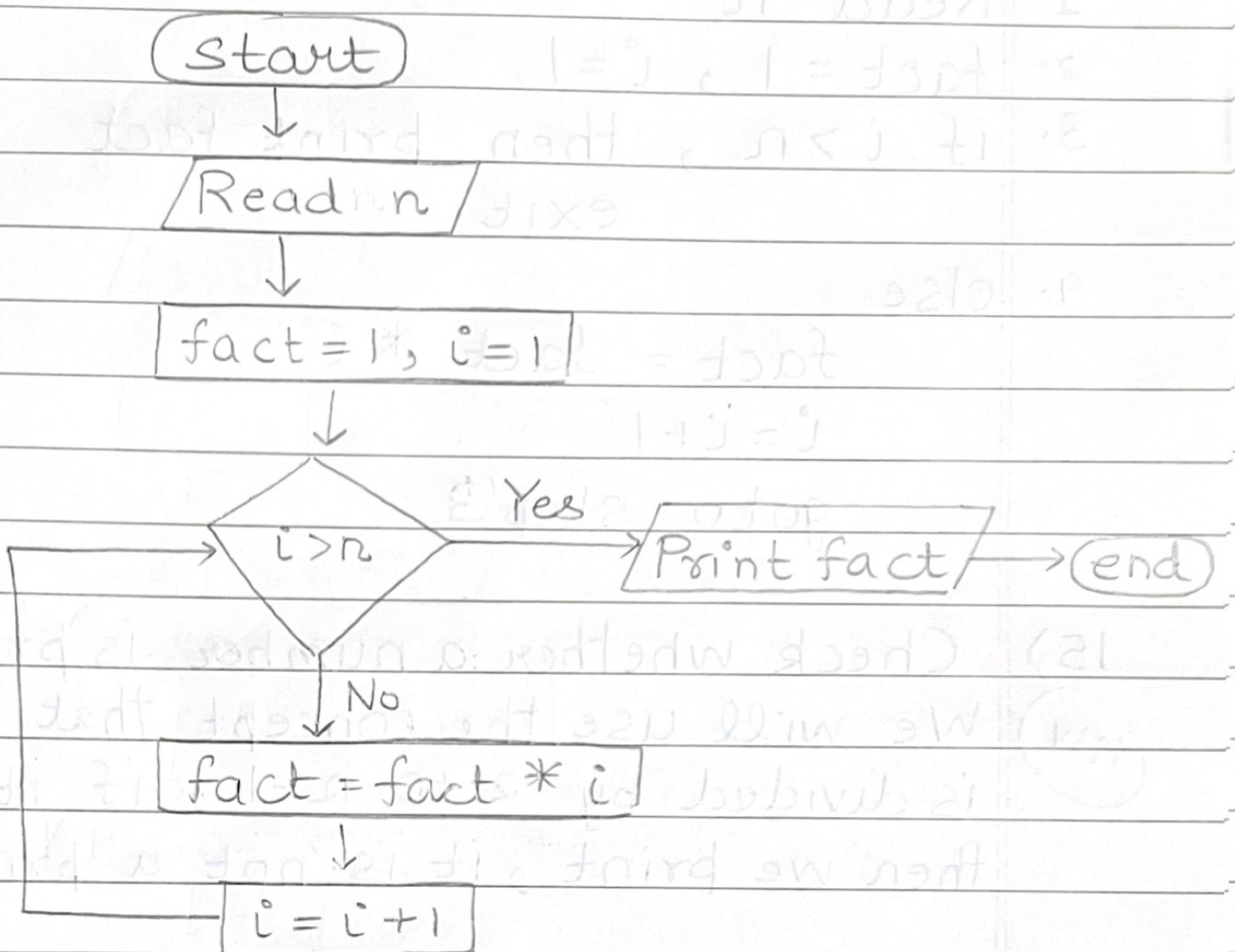
$i = i - 1$

goto step 3

14) Find factorial of the number n .

$$n! = 1 \times 2 \times 3 \times \dots \times (n-1) \times n$$

HW



Dry run for $n = 3$

1st iteration

$$1 > 3 \quad \text{No}$$

$$\text{fact} = 1 * 1 = 1$$

$$i = 2$$

2nd iteration

$$2 > 3 \quad \text{No}$$

$$\text{fact} = 1 * 2 = 2$$

$$i = 3$$

3rd iteration

$$3 > 3 \quad \text{No}$$

$$\text{fact} = 2 * 3 = 6$$

$$i = 4$$

4th iteration

$$4 > 3 \quad \text{Yes}$$

Print 6

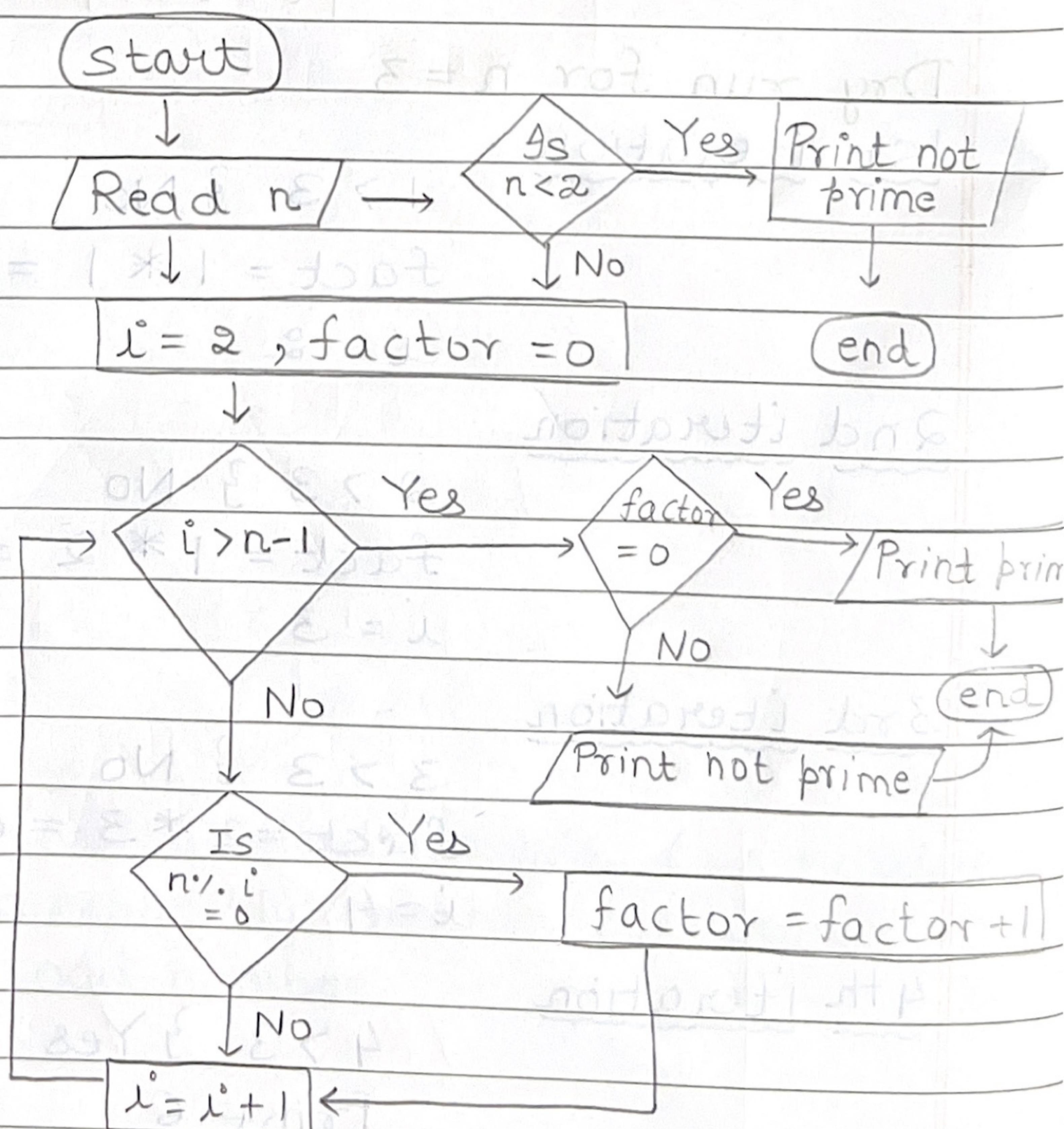
end

Pseudocode

1. Read n
2. fact = 1, i = 1
3. if $i > n$, then print fact
exit
4. else
 fact = fact * i
 $i = i + 1$
 goto step 3

15) Check whether a number is prime or not.

HW
We will use the concept that when number is divided by 2 to $n-1$, if it gives a factor then we print, it is not a prime number



3rd iteration $4 > 3 \quad 3 \text{ Yes}$ factor = 0 $\quad 3 \text{ No}$

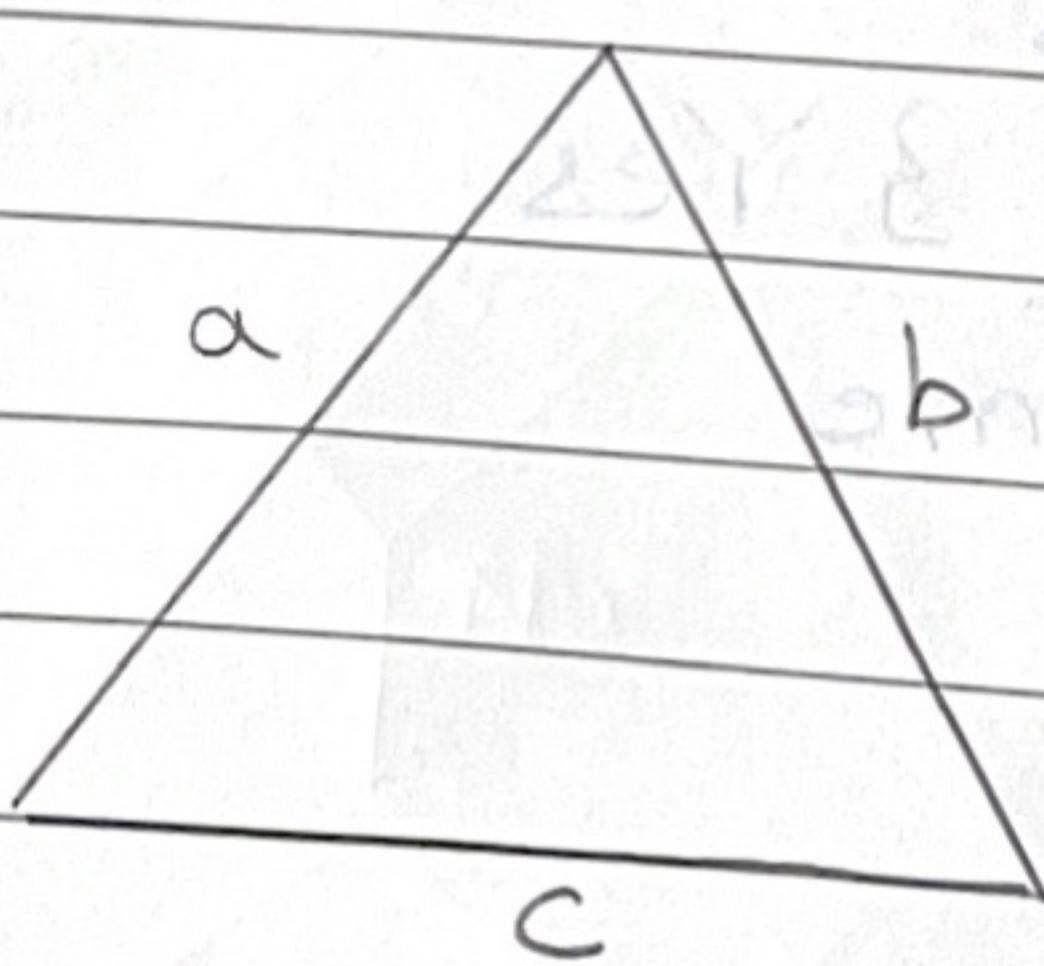
Print not prime.

Pseudocode

1. Read n
2. if $n < 2$ print not prime
exit
3. $i = 2$, factor = 0
4. if $i > n-1$
5. if factor = 0, then print prime
6. else print not prime
7. else
8. if $n \% i == 0$ factor = factor + 1
 $i = i + 1$, goto step 4
- 9.
10. else $i = i + 1$
11. goto step 4

16) Check whether a triangle is valid or not.

HW



$$\left. \begin{array}{l} a+b > c \\ a+c > b \\ b+c > a \end{array} \right\}$$

conditions to become
valid triangle

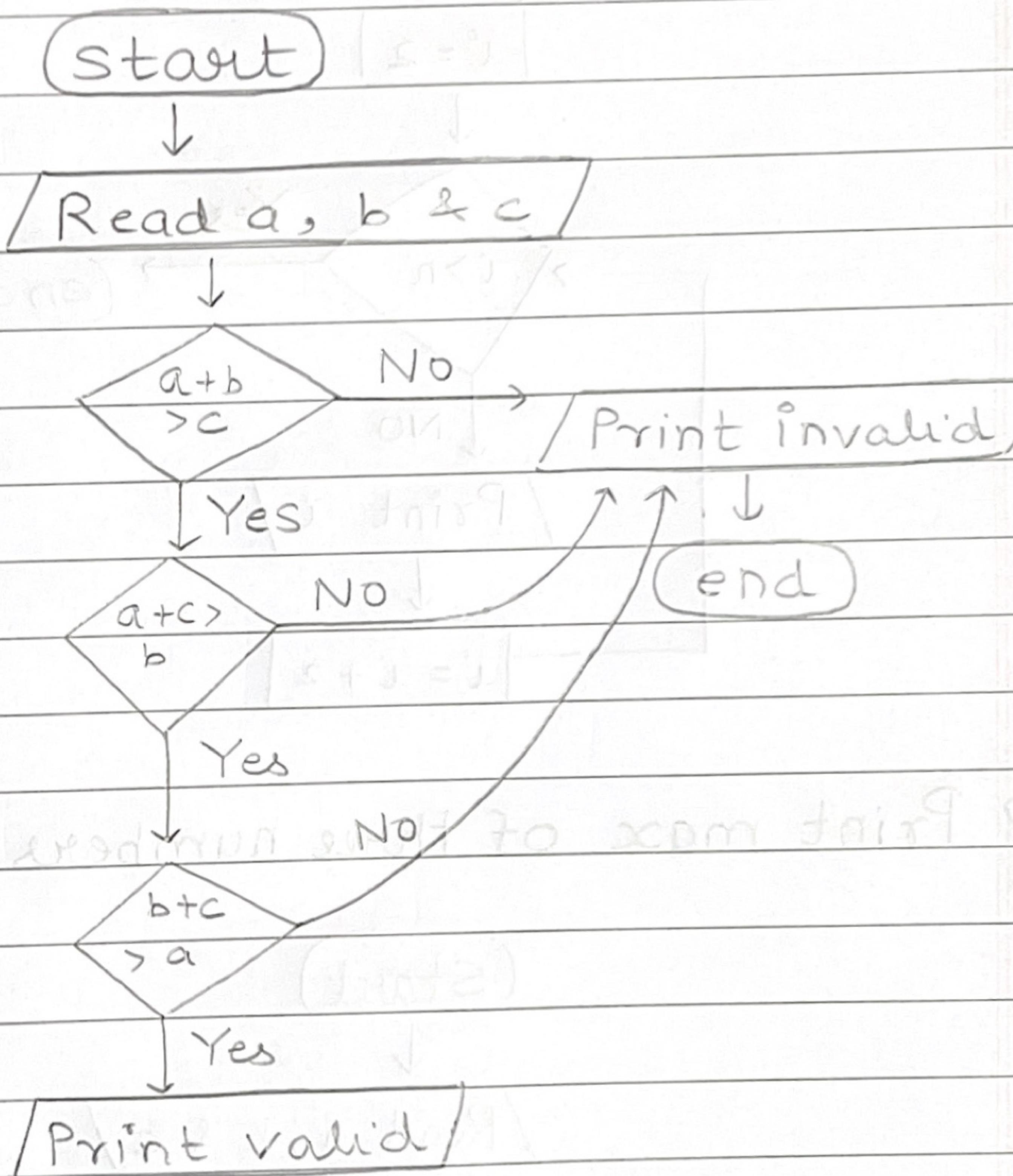
Pseudocode

1. Read a, b & c
2. if $a+b > c$,

3. if ($a+c > b$),

4. if ($b+c > a$), print valid

7. else print invalid



5. else print invalid

6. else print invalid

HW

17) Print 1 to N but only even numbers

1 Read n

2 i=2

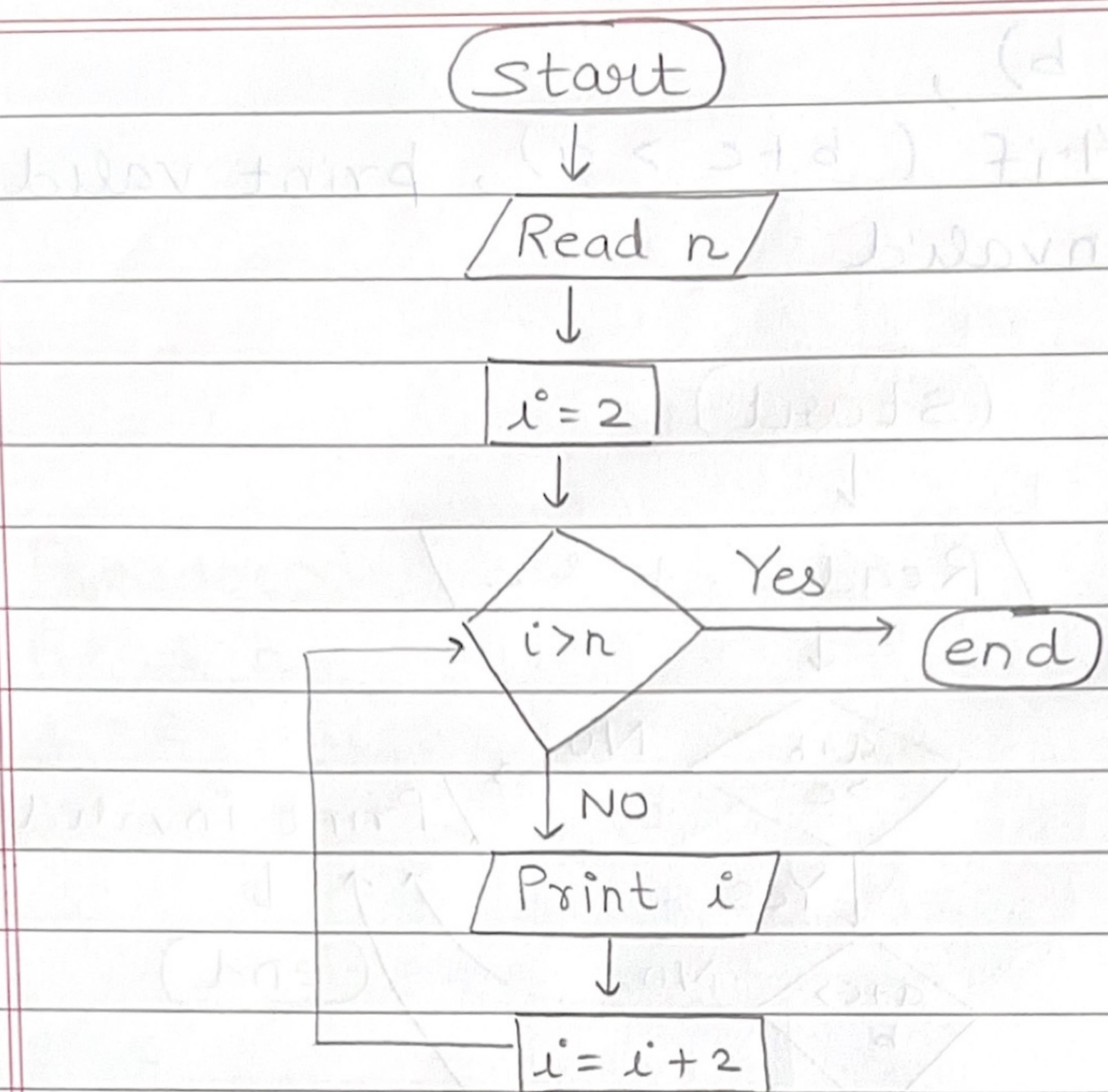
3 if $i > n$, exit

4 else

print i

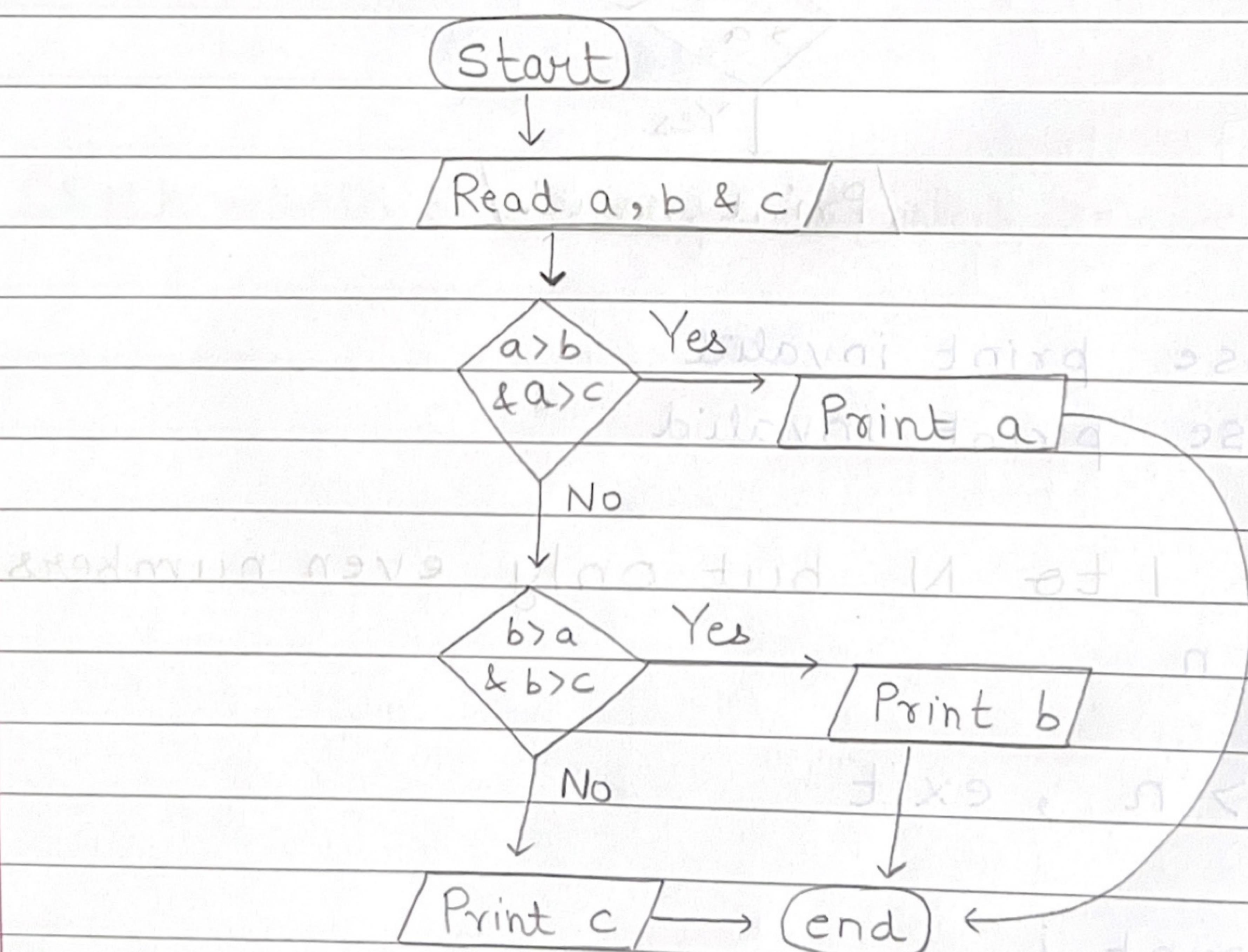
$i = i + 2$

goto step 3.



18) Print max of three numbers

HW



Pseudocode

Read a, b & c

if ($a > b$) & ($a > c$), print a
else if ($b > a$) & ($b > c$), print b
else print c

Dry run

$$(i) n = 5$$

1st iteration

$$i = 2$$

$$2 > 4 \quad \{ \text{No}$$

$$5 \% 2 = 0 \quad \{ \text{No}$$

$$i = 3, \text{ factor} = 0$$

2nd iteration

$$i = 3$$

$$3 > 4 \quad \{ \text{No}$$

$$5 \% 3 = 2 \quad \{ \text{Not 0}$$

$$i = 4, \text{ factor} = 0$$

3rd iteration

$$i = 4$$

$$4 > 4 \quad \{ \text{No}$$

$$5 \% 4 = 0 \quad \{ \text{Not 0}$$

$$i = 5, \text{ factor} = 0$$

4th iteration

$$i = 5$$

$$5 > 4 \quad \{ \text{Yes}$$

$$\text{factor} = 0 \quad \{ \text{Yes}$$

Print prime

end.

$$(ii) n = 4$$

1st iteration

$$i = 2$$

$$2 > 3 \quad \{ \text{No}$$

$$4 \% 2 = 0 \quad \{ \text{Yes}$$

$$\text{factor} = 0 + 1 = 1$$

$$i = 3, \text{ factor} = 1$$

2nd iteration

$$i = 3$$

$$3 > 3 \quad \{ \text{No}$$

$$4 \% 3 = 0 \quad \{ \text{No}$$

$$i = 4, \text{ factor} = 1$$