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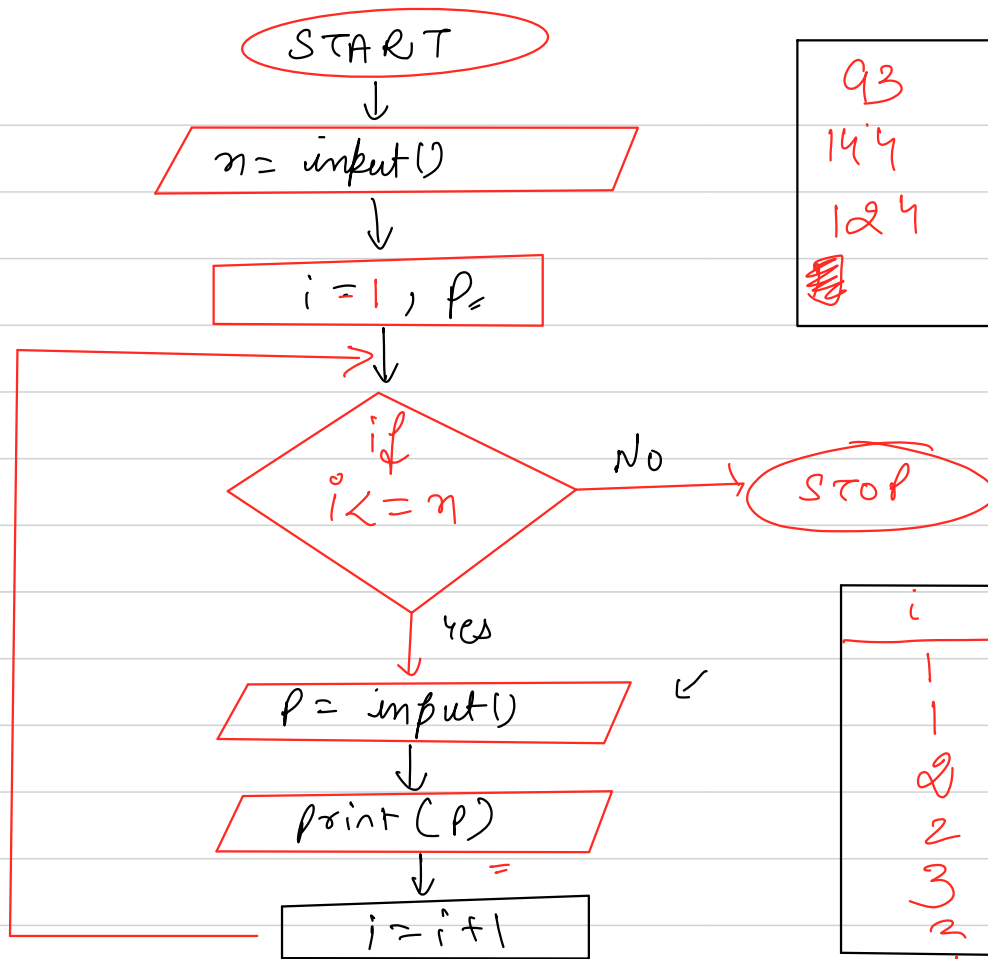
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Q.2 Draw a flowchart, to get a number 'n' as input.  
Then <sup>input</sup> input 'n' more numbers & print all of them.

ex → slr 5 ] → (n)  
10  
11  
12  
13  
14

gp →  
10  
11  
12  
13  
14



93  
 144  
 124  
~~124~~

i	p
1	—
1	93
2	93
2	144
3	144
2	124
1	124

$n = 3$   
 $\rightarrow 93, 144, 124$

Q or

Take an input  $n$ , and draw a flowchart to get sum of first  $n$  even numbers and also print the numbers. Also print the sum.

NOTE  $\rightarrow$  Consider 2 as the first even no.

$n=3$   $\rightarrow$  2  
4  
6  
 $\rightarrow$  12

i	Sum
2	0
4	2
6	6
8	12
10	20

n = 4

START

n = input()

i = 2, sum = 0

Display

2  
4  
6  
8  
10

if  
 $i \leq 2 * n$

NO

print(sum)

stop

yes

print(i)

sum = sum + i  
i = i + 2

sum = 2 + 4 = 6  
i = 2 + 2 = 4

Q → Given a number  $N$ , print the reverse of the number  $N$ .

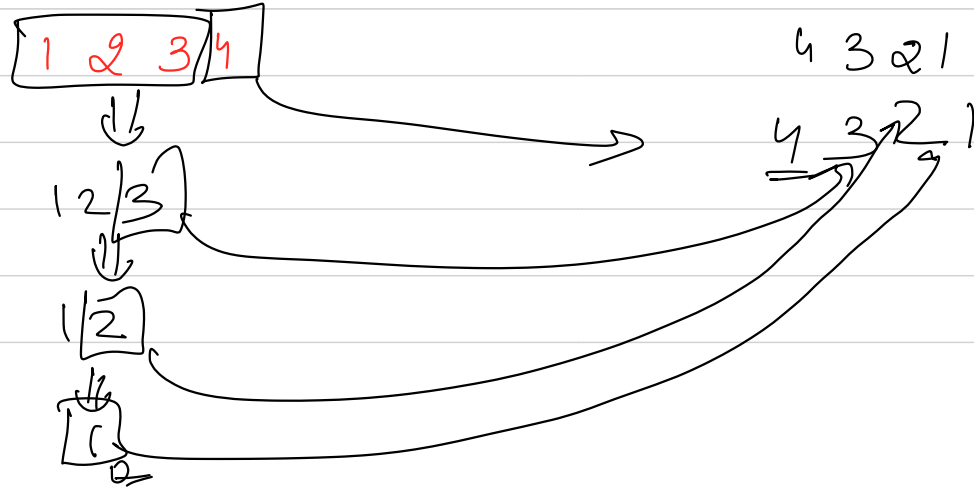
Note → If the reverse contains leading zeroes then avoid them.

Ex → 1 →  $N = 1\ 2\ 3\ 4$   
o/p →  $4\ 3\ 2\ 1$

Ex → 2 →  $N = 9\ 4\ 3\ 0\ 0\ 0$   
o/p →  $3\ 4\ 9$

→ We have to anyhow parse the given number in right to left direction.

→ We have to extract digits in the right to left order



→ How to get the last digit.

→ How to reduce the no. by removing the last digit.

$$n = 1234 \rightarrow 1000 \times 1 + 100 \times 2 + 10 \times 3 + 4$$

remainders

$x = n \% 10$   
 $= 1234 \% 10$   
 $= 4$

$\downarrow$   
divisible  
by 10 ? ?  
no

$\downarrow$   
not  
divisible  
by 10  
no



divide 10      remainder

$$n = 1234 \Rightarrow 1000 * 1 + 100 * 2 + 10 * 3 + 4$$

divisible by 10      Non divisible by 10

$$x = n \% 10$$

4 → last digit

$1234 \rightarrow \underline{\underline{123}}$   
 ↓  
eliminate

$$1234 = 1000 \times 1 + 100 \times 2 + 10 \times 3 + 4$$

↓  
 divide 10

↓  
floor divide

$123.4 \rightarrow$   
 ↓      ↓  
quotient      reduced no

(//)

$$x = n // 10$$

$$\underline{\underline{y = 123}}$$

// 10 → integer  
 (10) → real value

Instead of pruning the digits we can generate the number

$$\text{result} = \underline{\underline{0}}$$

$$\text{result} = 10 * \text{result} + 3$$

$$= 10 * 0 + 3$$

$$= \underline{\underline{3}}$$

$$\text{result} = 10 * \text{result} + 0$$

$$= 10 * 3 + 0$$

$$= \underline{\underline{30}}$$

$$\begin{array}{r} n = 1203 \\ \hline \hline \downarrow \\ 120 \\ \hline \hline \downarrow \\ 12 \\ \hline \hline \end{array}$$

reverse

result	n	rem
0	<u>12030</u>	<u>0</u>
0	1203	3
3	<u>120</u>	0
30	<u>12</u>	2
<u>302</u>	<u>1</u>	1
3021	<u>0</u>	

1) → Extract the last digit

2) → Reduce the number

3) → add the last digit in result

$$\text{result} = 0$$

$$\text{result} = 10 * \text{result} + 1$$

$$= 10 * 302 + 1$$

$$= 3020 + 1$$

$$= 3021$$

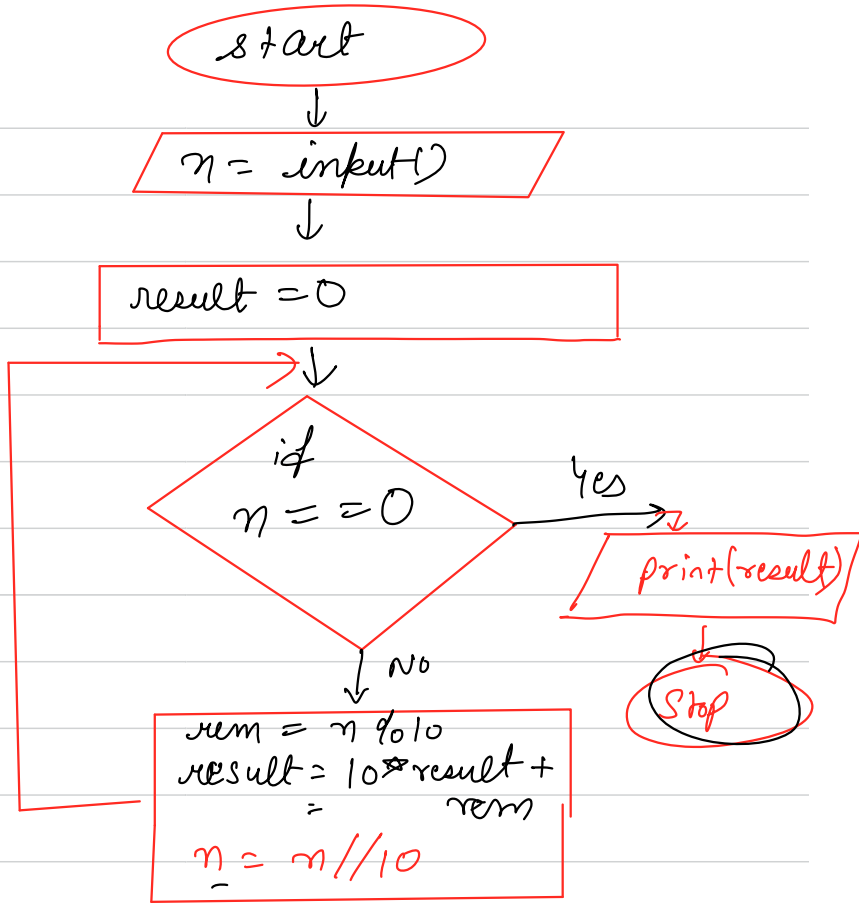
$$\text{10} \rightarrow \underline{\underline{0}}$$

$$n = \underline{\underline{102}}$$

n	result	rem
102	0	2
10	2	0
1	20	1
0	201	

$$\begin{array}{l} 10 \times 20 + 1 \\ 200 + 1 \\ \underline{\underline{201}} \end{array}$$

$$\underline{\underline{201}}$$



Q-2 Given 3 numbers by a user, draw a flowchart to calculate second maximum.

Ex      11      10      15

→ 11

START

a = input()  
b = input()  
c = input()

a = 2

b = 2

c = 1

