Q.No.01:

ANS:

Step1: Start

Step2: Input A, B and C.

Step3: if (A<B) and (A<C) then smallest =A.

Step4: if (B<C) then smallest =B.
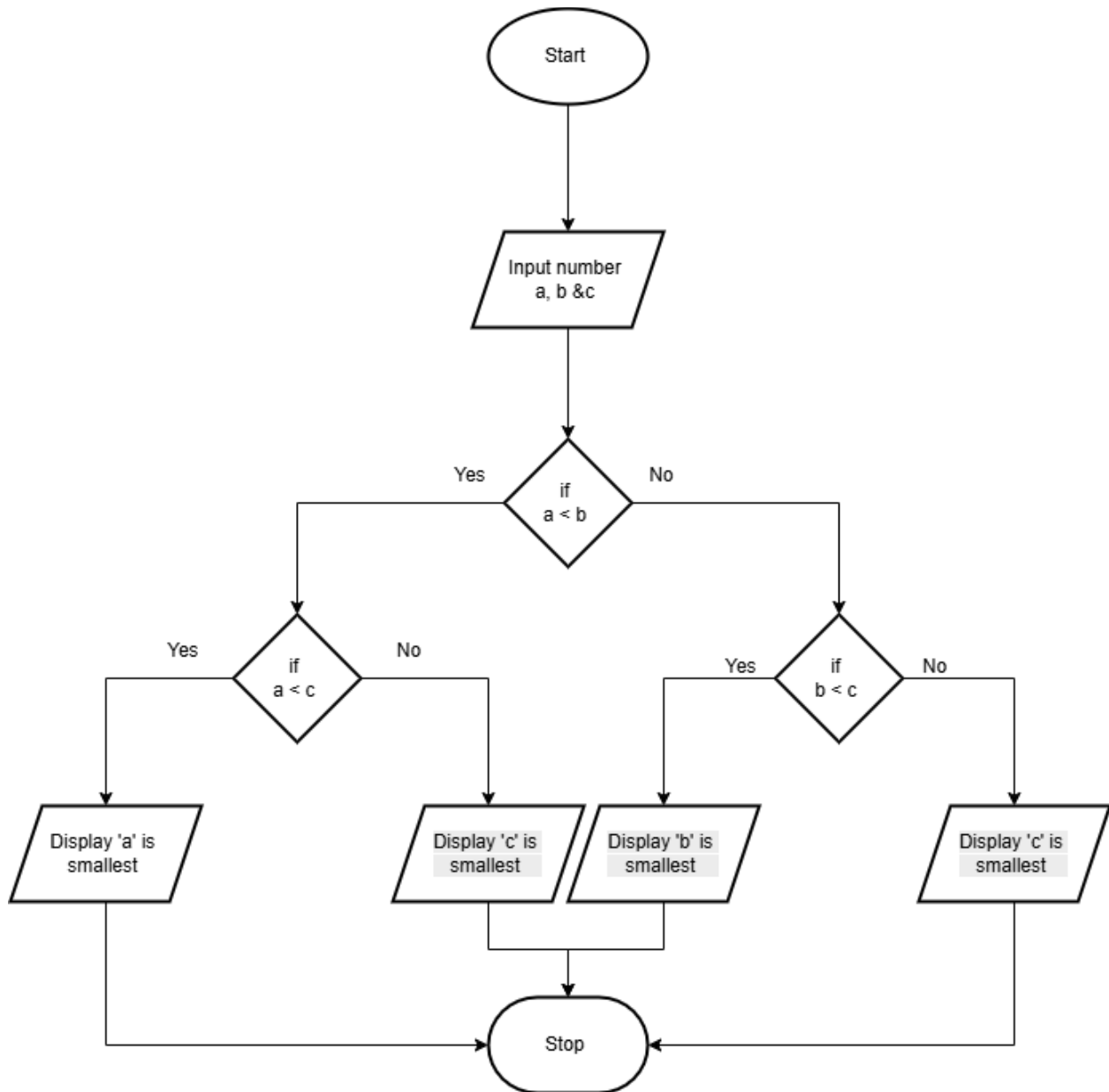
Step5: Else smallest = C.
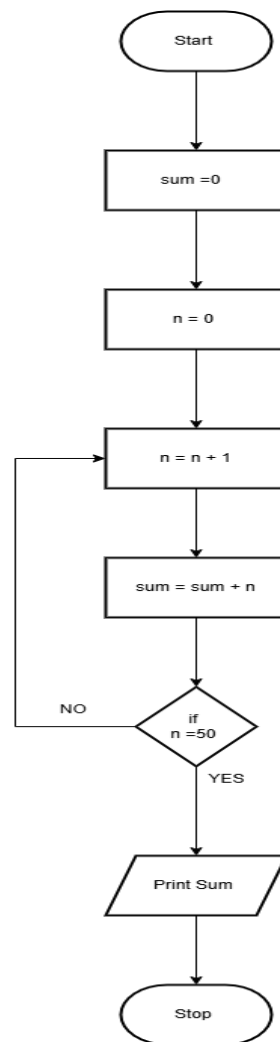
Step6: Print smallest.

Step7: End.

Flowchart:

Q.No.11: Draw a flowchart to find the smallest of three numbers?
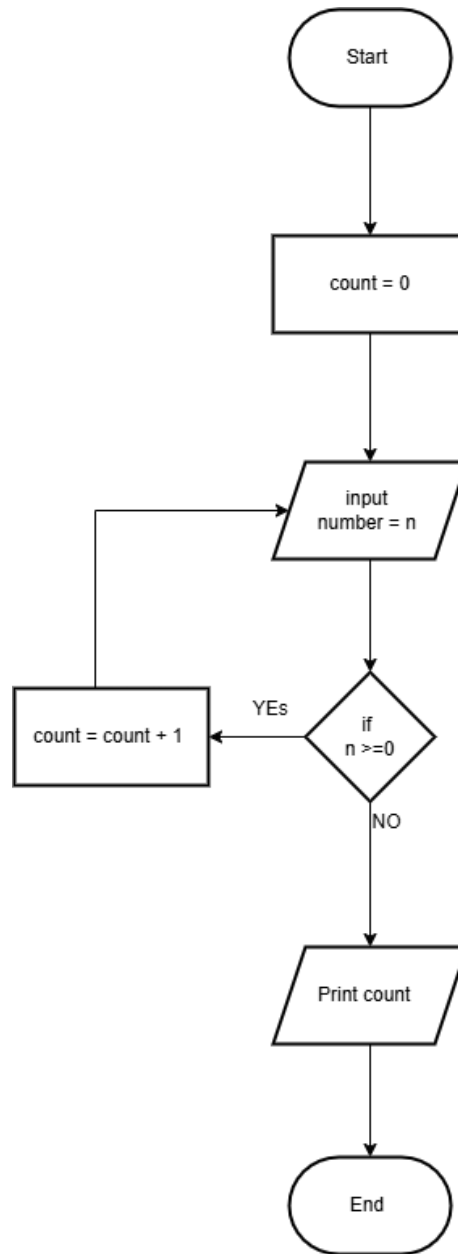
Ans: Flowchart is given below.

Q.No.12: Draw a flowchart to calculate the sum of the first 50 natural numbers using a loop?

Ans: Flowchart is given below.

```
                    ┌─────────────┐
                   (    Start      )
                    └──────┬──────┘
                           │
                           ▼
                    ┌─────────────┐
                    │   sum =0    │
                    └──────┬──────┘
                           │
                           ▼
                    ┌─────────────┐
                    │    n = 0    │
                    └──────┬──────┘
                           │
                           ▼
       ┌──────────►┌─────────────┐
       │           │  n = n + 1  │
       │           └──────┬──────┘
       │                  │
       │                  ▼
       │           ┌─────────────┐
       │           │ sum = sum + n│
       │           └──────┬──────┘
       │                  │
       │                  ▼
       │   NO         ◇ if    ◇
       └──────────────  n =50
                         ◇    ◇
                           │ YES
                           ▼
                    ╱─────────────╱
                   ╱  Print Sum  ╱
                  ╱─────────────╱
                           │
                           ▼
                    ┌─────────────┐
                   (    Stop      )
                    └─────────────┘
```
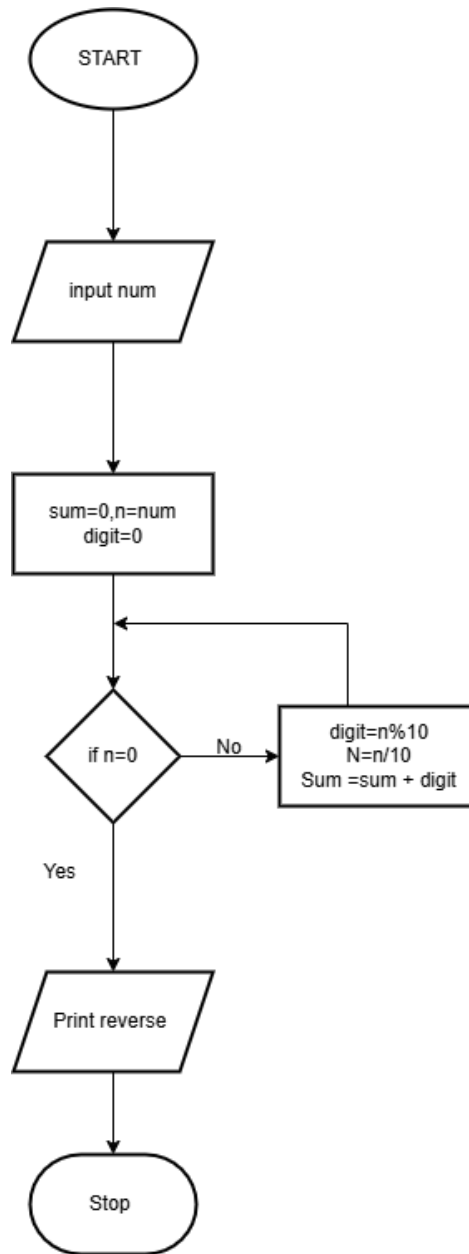
Q.No.13: Draw a flowchart to count how many times a user enters a positive number (stop when a negative number is entered)?

Ans: Flowchart is given below.

```
                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
                         │
                         ▼
                  ┌──────────────┐
                  │  count = 0   │
                  └──────┬───────┘
                         │
                         ▼
                   ╱──────────╲
                  ╱   input    ╲
                  ╲ number = n ╱
                   ╲──────────╱
                         │
                         ▼
            YEs         ╱◇╲
   ┌──────────────┐   ╱     ╲
   │count = count+1│◄─◇ if    ◇
   └──────────────┘   ╲n >=0╱
                       ╲   ╱
                        ╲◇╱
                         │ NO
                         ▼
                   ╱──────────╲
                  ╱ Print count╲
                  ╲────────────╱
                         │
                         ▼
                    ┌─────────┐
                    │   End   │
                    └─────────┘
```

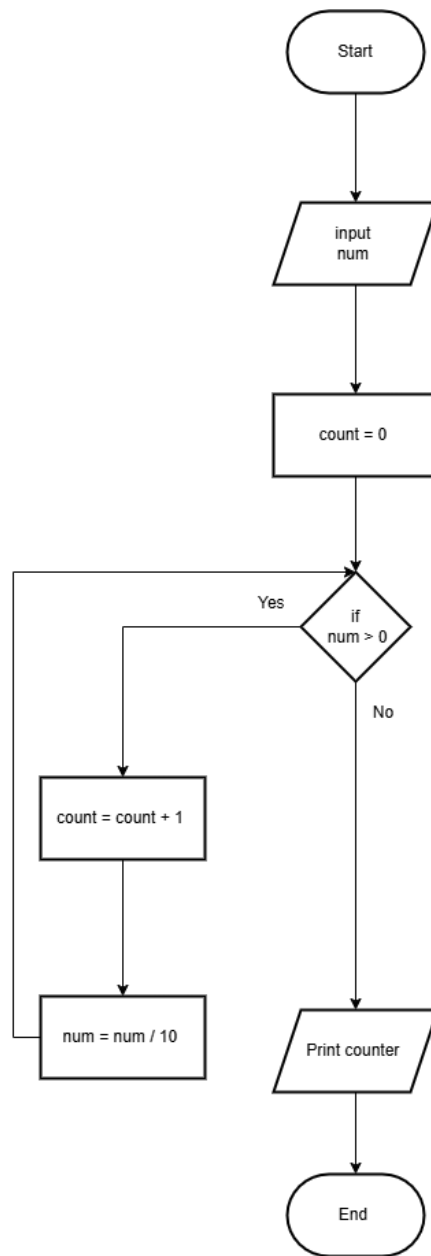Q.No.14: Draw a flowchart to calculate the sum of digits of a given number (e.g., 453 → 4+5+3)?

Ans: Flowchart is given below.

```
                    ╭─────────╮
                   │  START   │
                    ╰─────────╯
                        │
                        ▼
                    ╱─────────╲
                   ╱ input num  ╲
                   ╲           ╱
                    ╲─────────╱
                        │
                        ▼
                ┌──────────────────┐
                │  sum=0,n=num     │
                │  digit=0         │
                └──────────────────┘
                        │
                        ▼
                      ╱╲
                    ╱    ╲         No      ┌──────────────────┐
                  ╱ if n=0 ╲ ──────────►  │  digit=n%10      │
                  ╲        ╱              │  N=n/10          │
                    ╲    ╱                │  Sum =sum + digit │
                      ╲╱                  └──────────────────┘
                        │
                       Yes
                        │
                        ▼
                    ╱─────────╲
                   ╱Print reverse╲
                   ╲           ╱
                    ╲─────────╱
                        │
                        ▼
                    ╭─────────╮
                   │   Stop   │
                    ╰─────────╯
```
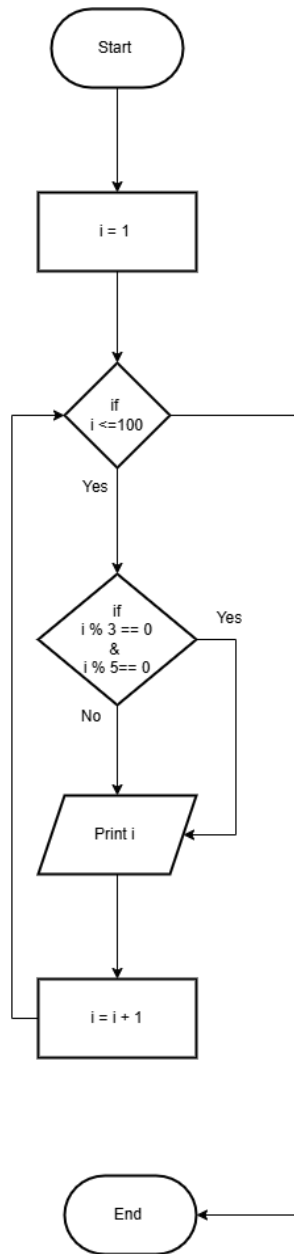
Q.No.15: Draw a flowchart to find the number of digits in each given positive number?

Ans: Flowchart is given below.

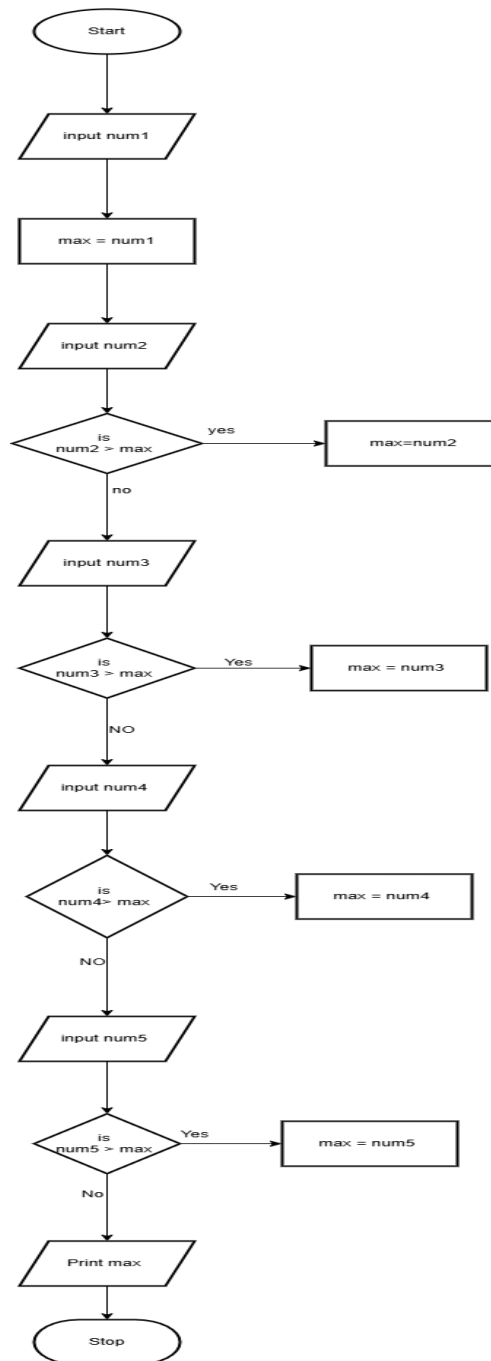Q.No.16: Draw a flowchart to print all numbers from 1 to 100 that are divisible by both 3 and 5?

Ans: Flowchart is given below.

```
                    ┌─────────────┐
                    │    Start    │
                    └──────┬──────┘
                           │
                           ▼
                    ┌─────────────┐
                    │    i = 1     │
                    └──────┬──────┘
                           │
                           ▼
                        ◇ if
                        i <=100 ◇ ──────────────┐
                           │                     │
                          Yes                    │
                           │                     │
                           ▼                     │
                        ◇ if                      │
                        i % 3 == 0  ──── Yes ─┐   │
                        &                      │   │
                        i % 5== 0 ◇            │   │
                           │                   │   │
                          No                   │   │
                           │                   │   │
                           ▼                   │   │
                    ╱─────────────╱ ◄──────────┘   │
                    ╱   Print i   ╱                │
                    └─────────────┘                │
                           │                       │
                           ▼                       │
                    ┌─────────────┐                │
                    │   i = i + 1  │                │
                    └─────────────┘                │
                                                   │
                    ┌─────────────┐                │
                    │     End     │ ◄──────────────┘
                    └─────────────┘
```
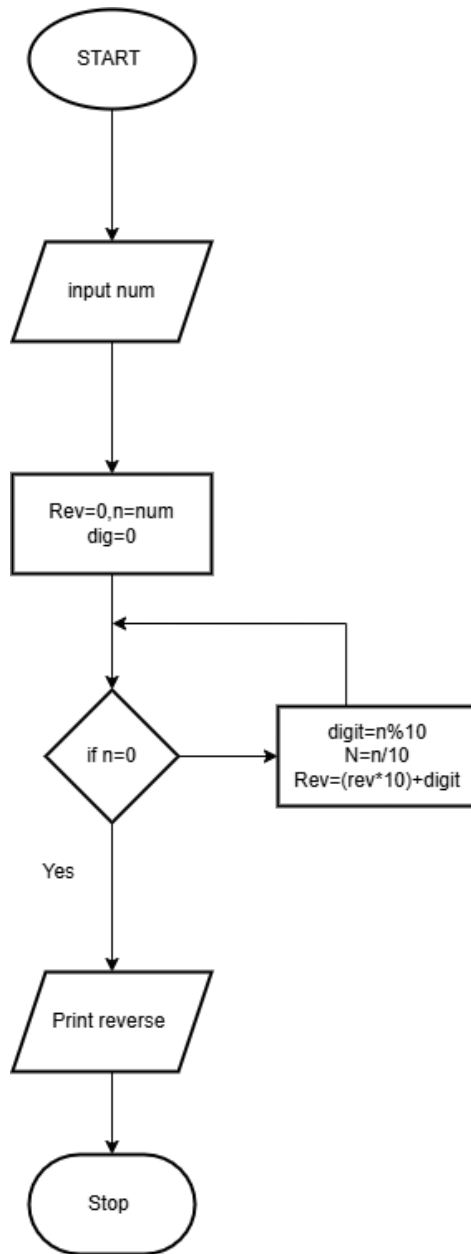
Q.No.17: Draw a flowchart to input five numbers one by one and find the highest among them?
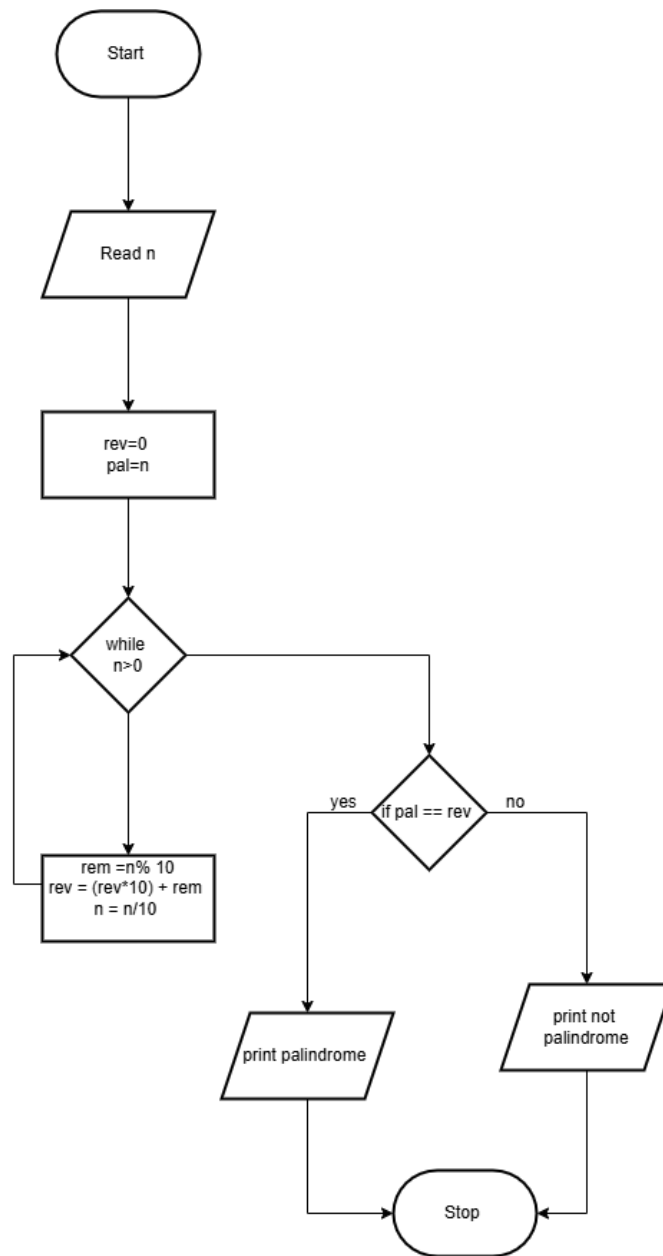
Ans: Flowchart is given below.

Q.No.18: Draw a flowchart to reverse a number (e.g., 123 → 321)?

Ans: Flowchart is given below.

START

input num

Rev=0,n=num
dig=0

if n=0

digit=n%10
N=n/10
Rev=(rev*10)+digit

Yes

Print reverse

Stop

Q.No.19: Draw a flowchart to check if a number is a palindrome (reads the same forward and backward)?

Ans: Flowchart is given below.

Q.No.20: Draw a flowchart to find the sum of all even numbers between 1 and 100?

Ans: Flowchart is given below.

```
            ┌─────────────┐
            │    Start    │
            └──────┬──────┘
                   │
                   ▼
            ┌─────────────┐
            │   sum = 0   │
            │    i = 1    │
            └──────┬──────┘
                   │
                   ▼
               ◇ if
              i <= 100 ◇
                 Yes
                   │
                   ▼
               ◇ if
            No  i % 2 == 0 ◇
                 Yes
                   │
                   ▼
            ┌─────────────┐
            │ sum = sum + i│
            └──────┬──────┘
                   │
                   ▼
            ┌─────────────┐
            │   i = i + 1 │
            └──────┬──────┘
                   │
                   ▼
             ╱ Print sum ╱
                   │
                   ▼
            ┌─────────────┐
            │     End     │
            └─────────────┘
```

Start

sum = 0
i = 1

if
i <= 100

Yes

No

if
i % 2 == 0

Yes

sum = sum + i

i = i + 1

Print sum

End