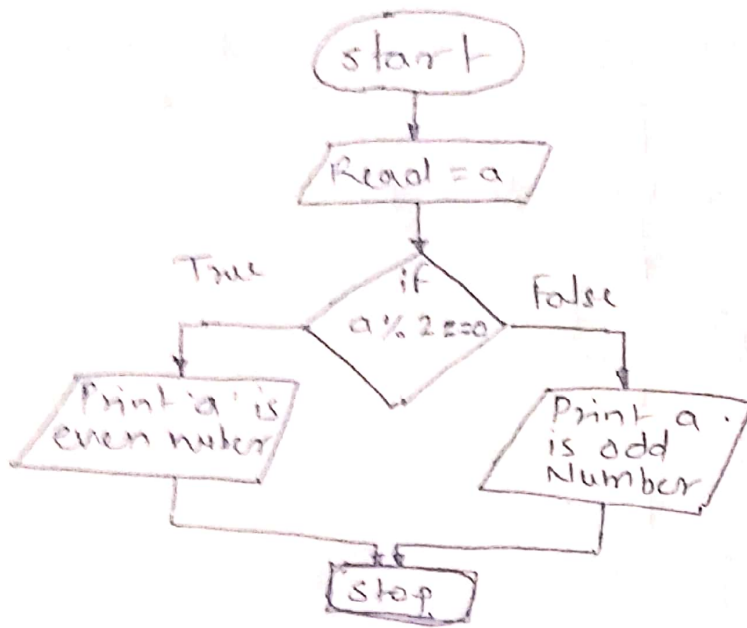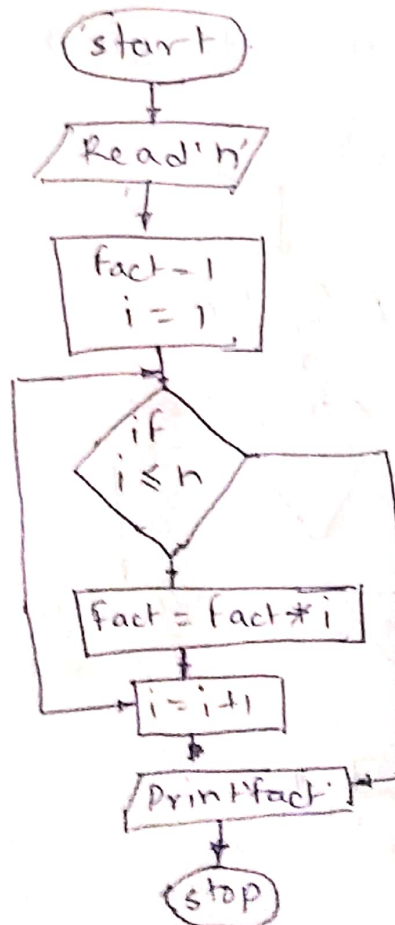Assignment No: -1

Q) check if the given no is even or odd?

1. start
2. Read 'a
3. If a% 2 == 0
   print a is even &
4. else print 'a' is
   is odd No.

Q.2. Write a java program to find the factorial of given number

1 start
2. Read n
3. Cd Declare
   Fact=1
   i = 1
4. If i≤n then
   cal fact=fact *i
5. Cal i=i+1
6. Repeat the step
7. print fact
8. stop

Q Swap two numbers without using the third
variable ?

Start

Read variable x,y

$x = x+y$

$y = x-y$

$x = x-y$

Print x,y

stop
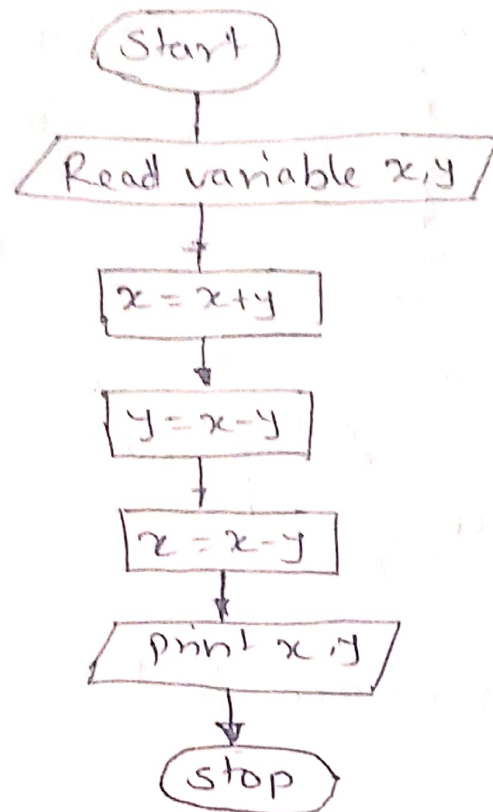
1. Start
2. Read

8. How to check wether the given no. is +ve or -ve

start

Read n

True   if   false
            n>=0

Print "Positive   Print "Negative
Number"   Number"

stop
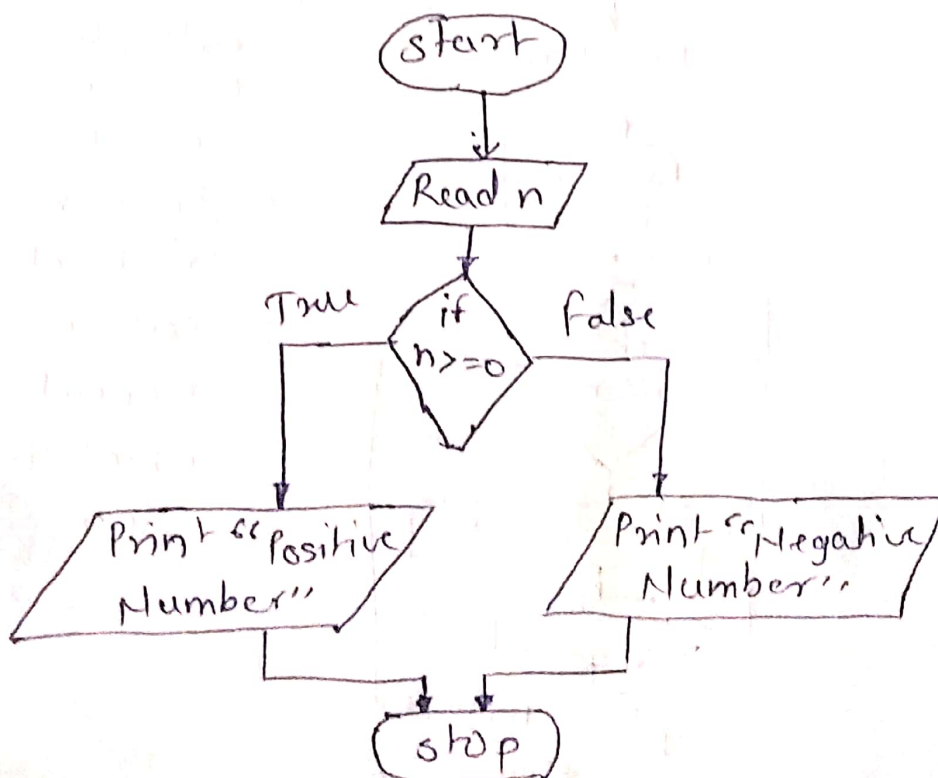
Write a java program to print all the factors of the given no?

```
        ┌─────────┐
        │  Start  │
        └─────────┘
             │
             ▼
      ╱──────────────╲
     ╱   Read n > 0    ╲
    ╱──────────────────╱
             │
             ▼
         ─────────
           i = 1
```
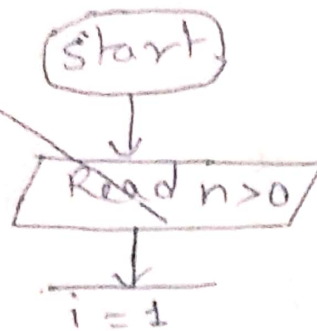
Write a program to find the sum of the digit of given no.

```
        ┌─────────┐
        │  start  │
        └─────────┘
             │
             ▼
      ╱──────────────╲
     ╱    Read n       ╲
    ╱──────────────────╱
             │
             ▼
     ┌───────────────┐
     │    sum = 0     │
     └───────────────┘
             │
             ▼
    ┌────────────────────┐
    │  rem = rem % 10    │◄──────┐
    │  sum = sum + rem   │       │
    │  num = num / 10    │       │
    └────────────────────┘       │
             │                   │
             ▼                   │
          ╱  if  ╲      True     │
         ╱ num > 0 ╲─────────────┘
          ╲       ╱
             │ false
             ▼
    ╱──────────────────╲
   ╱   Display sum       ╲
  ╱────────────────────╱
             │
             ▼
        ┌─────────┐
        │  stop   │
        └─────────┘
```
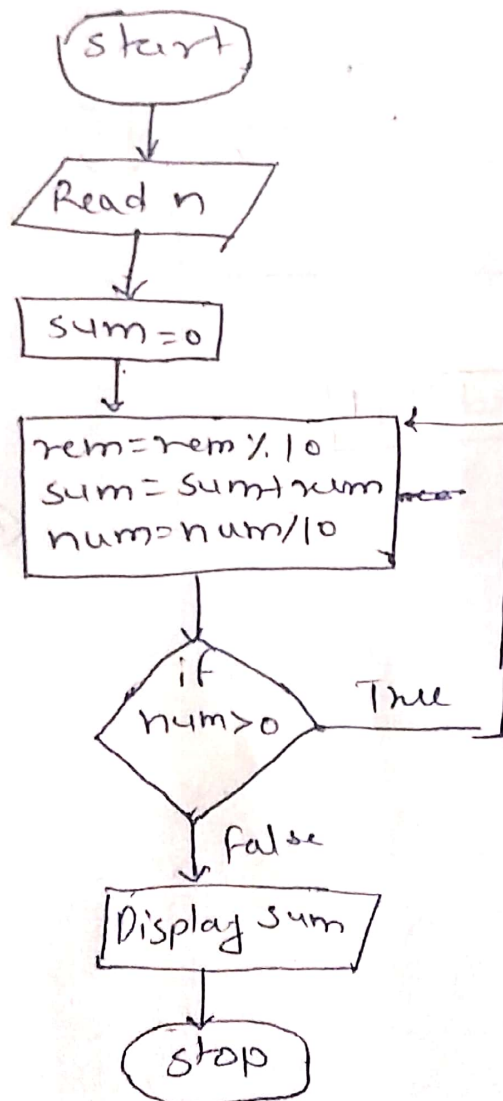
Q. To print the following series ODD no series
1, 3, 5, 7, 9, 11, 13 . . . .

```
              ( Start )
                  |
                  v
              [ N = 1 ]
                  |
                  v
      ----->  / Print N /
     |            |
     |            v
     |        [ N = N+2 ]
     |            |
     |            v
     |  True    /  if  \
      ---------<  N <= 20 >
                \       /
                  |
                  v  false
              ( stop )
```
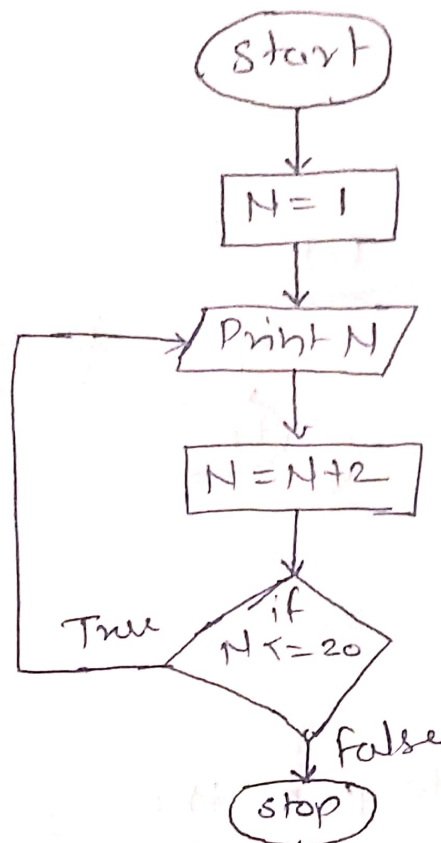
Q. To print the following series Even no. series
2, 4, 6, 8, 10, 12, 16 . . . .

```
              ( Start )
                  |
                  v
              [ N = 2 ]
                  |
                  v
      ----->  / Print N /
     |            |
     |            v
     |        [ N = N+2 ]
     |            |
     |            v
     |  True   /  if  \
      --------<  N <= 20 >
                \      /
                  |
                  v  False
              ( stop )
```

Q. Write a program to print 1 to 10 without using loop?

```
                    ( Start )
                       │
                       ▼
                  / count = 1 /
                       │
                       ▼
   True               if              False
 ◄──────────     count <= 10      ──────────►
      │                                    │
      ▼                                    ▼
  / Print  /                           ( End )
  / count  /
      │
      ▼
 │ count++ │ ────────────────►
```
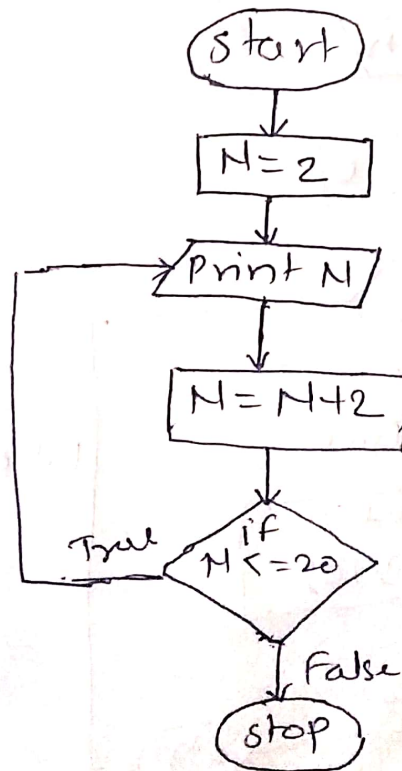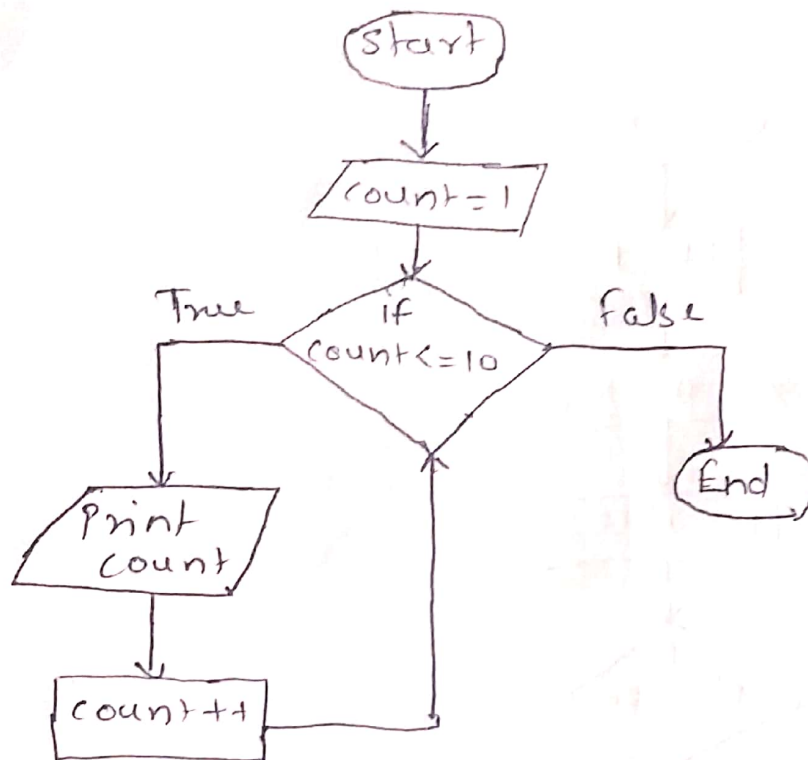
Q. Write a java program to print the digits of a given No.

```
                  ( start )
                     │
                     ▼
                 / Read n /
                     │
                     ▼
                │ count = 0 │
                     │
                     ▼
                    if
          ◄──────   n! = 0   ──────►
          │                        │
          │        True      False │
          │         ▼              │
          │    │  c++       │      │
          └────│  n = n/10; │      │
                     │              │
                     ▼              │
                / print c /         │
                     │              │
                     ▼              │
                  ( stop ) ◄────────┘
```
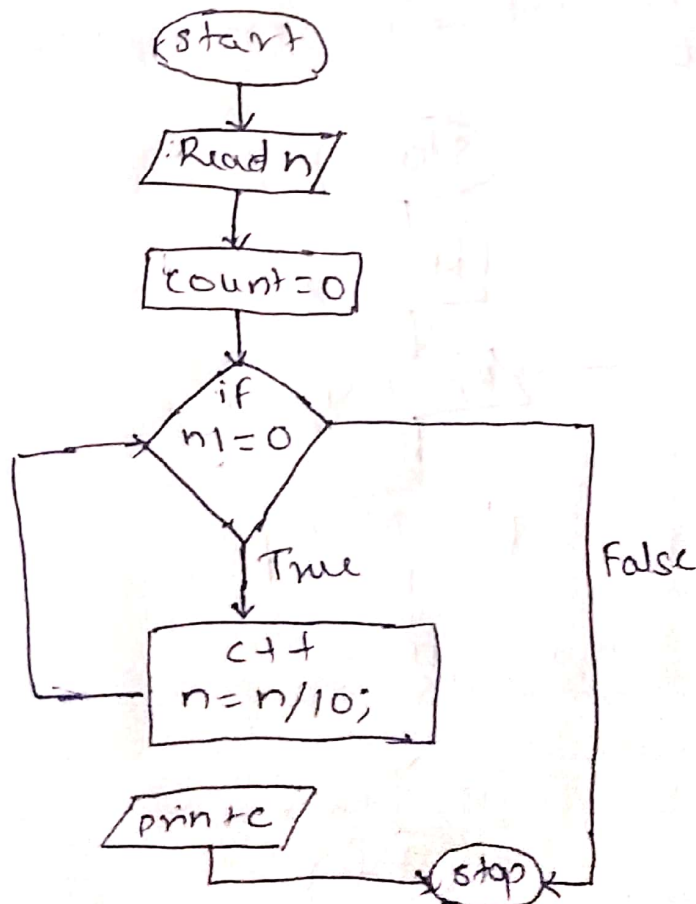
Q. Write a java program to find wheater the given number is leap year or not?

```
              ( start )
                  |
                  v
             /Read Year/
                  |
                  v
True            / if  \
<--------------<  year%4==0  >
  |             \         /
  |                  |
  v                  v
/Print "Leap/    /Print " Not
 year"/           leap year/
  |                  |
  |                  |
  v                  v
              ( stop )
```

Q. Write a program to print 1 to 10 without using loop

```
              ( start )
                  |
                  v
             /count=1/
                  |
                  v
                / if  \
       +-------<  count<=10 >-------+
       |        \         /         |
       |             |              | False
       |             v              |
       |           True             |
       |      +-----------+         |
       +----->|   C++     |         |
              |  n=n/10   |         |
              +-----------+         |
                  |                 |
                  +--------+--------+
                           v
                       ( stop )
```

9. While a a program to print all the factor of the given no

start

Read no

i = 1

if
i <= n → false

if
n MOD i =
0 → True → Print i

false

increased i by 1

stop

Q Write a java program to print all the factor of the given no. ?

```
                        ( start )
                           |
                           v
                   / Read n > 0 /
                           |
                           v
                     [ i = 1 ]
                           |
                           v
                          ( )
                           |
                           v
                     / if \
                    <  i <= n  >──────── False ──────┐
                     \     /                         │
                        |                            │
                        v                            │
                     / if \                          │
                    < n mod i >── True ── / print i /│
                     \  = 0  /                   |   │
                        |                        │   │
                      False                      │   │
                        v                        │   │
                       ( )<─────────────────────┘   │
                        |                            │
                        v                            │
                [ increased i by 1 ]                 │
                                                     v
                                                  ( stop )
```