MERN Assignment -1-

20.03.2022
Sunday.

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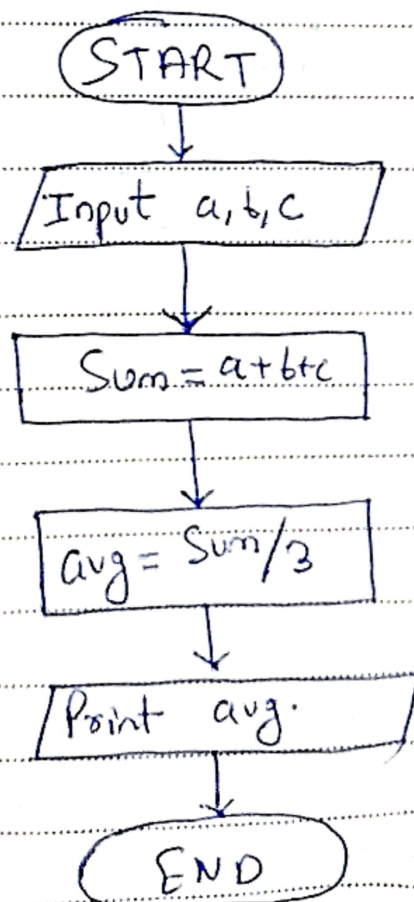
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Algorithm and flowchart for -

a) Average of 3 numbers.

Algorithm -
- START
- Read or input 3 numbers a, b, c.
- Sum of numbers = a + b + c
- Sum of numbers / 3. or average.
- Print Sum of numbers / 3 or average.
- END.

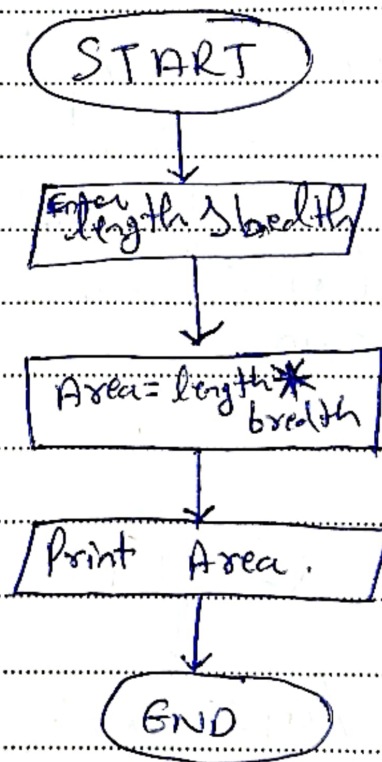**flowchart -**

START

Input a, b, c

Sum = a + b + c

avg = Sum/3

Print avg.

END

b) Area of rectangle whose length & bredth are given.

- Algorithm — • START.
  - Read or Enter length and bredth.
  - Area = length × bredth.
  - Print Area.
  - END.

- flow chart —

START

Enter length & bredth

Area = length * bredth

Print Area.

END

2) flowchart for fallowing—

a) Read age, for Senior Citizen —

```
                    ┌──────────┐
                    │  START   │
                    └────┬─────┘
                         │
                  ┌──────┴──────┐
                  │  Read Age   │
                  └──────┬──────┘
                         │
                      ◇ Age>60 ◇ ──── false ───┐
                         │                      │
                       true                     │
                         │                      │
              ┌──────────┴──────┐   ┌───────────┴────────┐
              │ Print Senior    │   │ Print Not a        │
              │ Citizen         │   │ Senior citizen     │
              └────────┬────────┘   └───────────┬────────┘
                       │                        │
                    ┌──┴────┐                   │
                    │  END  │ ◄─────────────────┘
                    └───────┘
```

b) Maximun of two numbers —

```
                    ┌──────────┐
                    │  START   │
                    └────┬─────┘
                         │
                  ┌──────┴──────┐
                  │ Read  a,b   │
                  └──────┬──────┘
                         │
                      ◇ a>b ◇ ──── false ───┐
                         │                    │
                       true                   │
                         │                    │
                  ┌──────┴──────┐      ┌───────┴────┐
                  │   Print a   │      │  Print b   │
                  └──────┬──────┘      └───────┬────┘
                         │                     │
                    ┌────┴──┐                  │
                    │  END  │ ◄────────────────┘
                    └───────┘
```
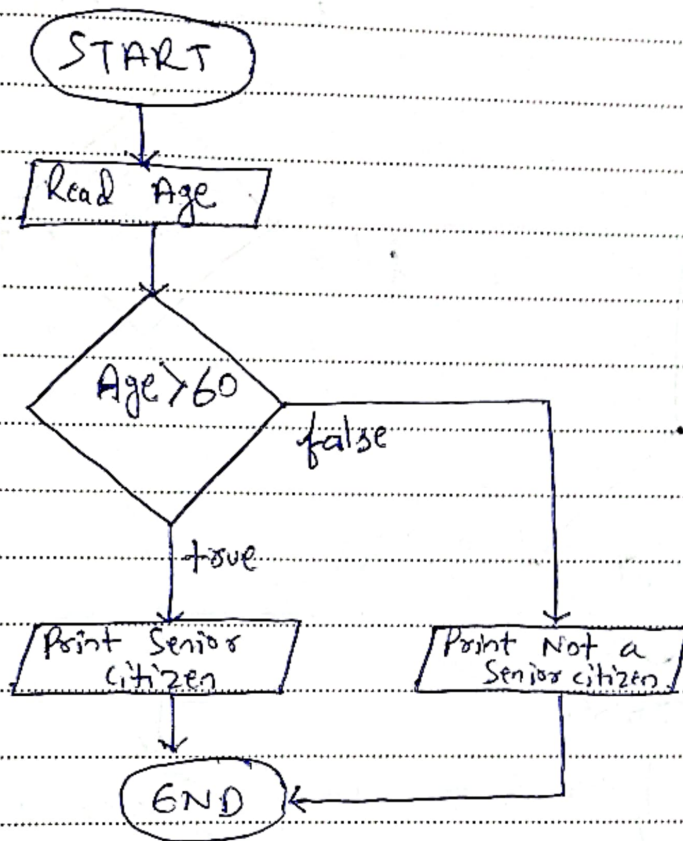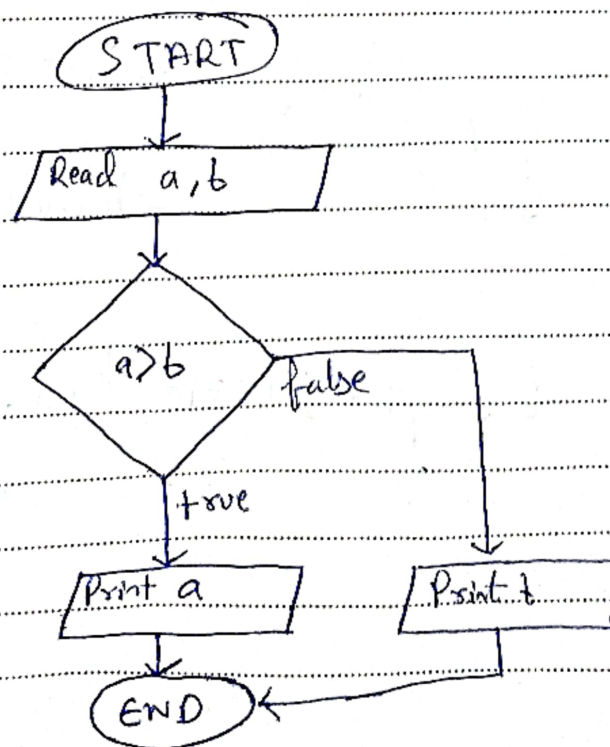
c) Read 3 numbers, Print the smallest —

```
                    ( START )
                        |
                        v
                 [ Read a,b,c ]
                        |
                        v
        false    <  a < b  >    true
        |                           |
        v                           v
   < b < c >  false          false  < a < c >
        |         \          /          |
     true|         \        /         true|
        v           v      v             v
  / Print b /    / Point c /         / Print a /
        |             |                   |
        |             v                   |
        +------->  ( END )  <-------------+
```
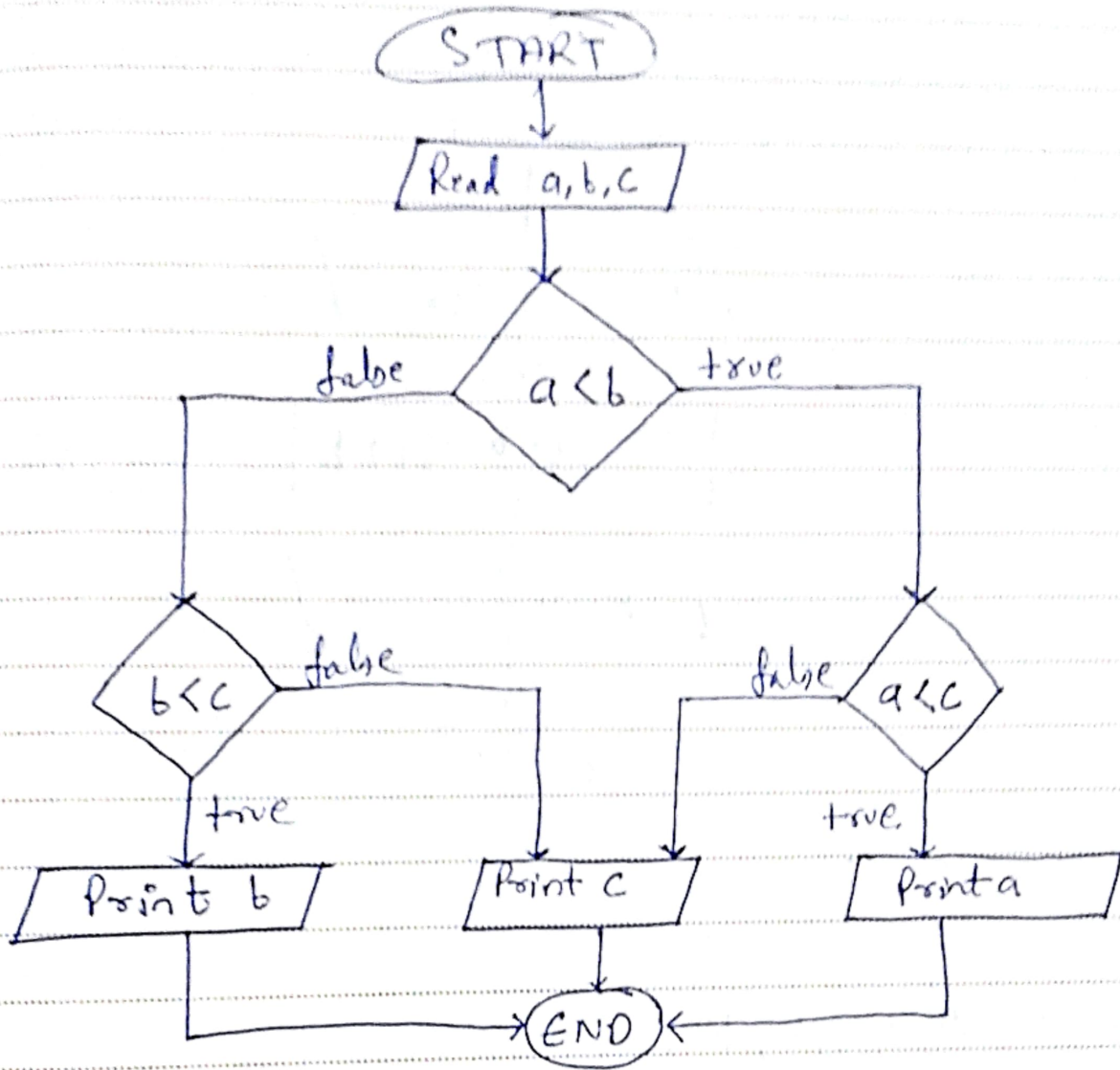
d) Read in inch & Print in meter —

```
              ( START )
                  |
                  v
          / Read 'a' in /
          /   inches.   /
                  |
                  v
          [ b = a * 0.0254 ]
                  |
                  v
          / Print 'b' in /
          /    meter     /
                  |
                  v
              ( END )
```

c) Print 2, 4, 6, 8, 10;

```
                    ( START )
                        |
                        v
        +-----------------------------+
        | i=0; i<10; i++              |
        |      if (i%2==0)            |
        +-----------------------------+
                        |
                        v
        /  Print 'i'                  /
                        |
                        v
                    ( END )
```