1) Algorithm and Flowcharts

a] Average of 3 numbers a, b and c

Algorithm :-

Step 1 : Start

2 : Read/input the first number a

3 : Read/input the 2nd number b
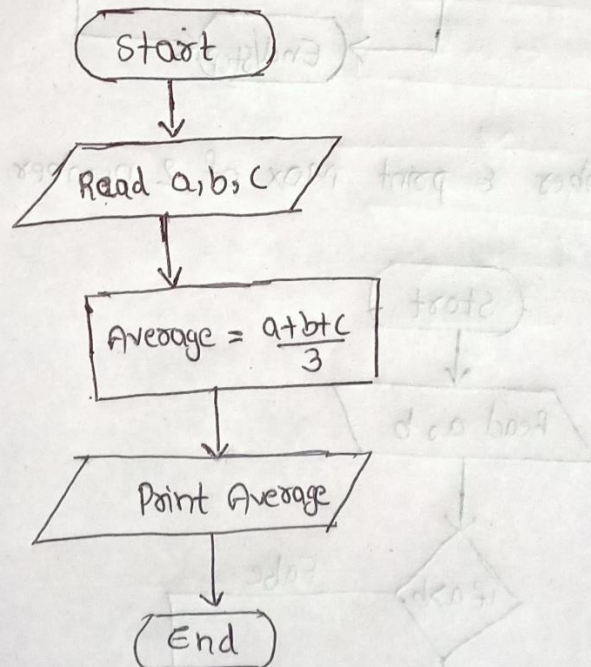
4 : Read/input the 3rd number c

5 : average $\leftarrow \dfrac{a+b+c}{3}$

6 : point average

7 : End

Flowchart :-

Start

↓

Read a, b, c

↓

Average $= \dfrac{a+b+c}{3}$

↓

Print Average

↓

End

1. b] Area of a rectangle

Algorithm :-

Step 1: Start
2: Read length l
3: Read breadth b
4: Area $\leftarrow l * b$
5: Print Area
6: End

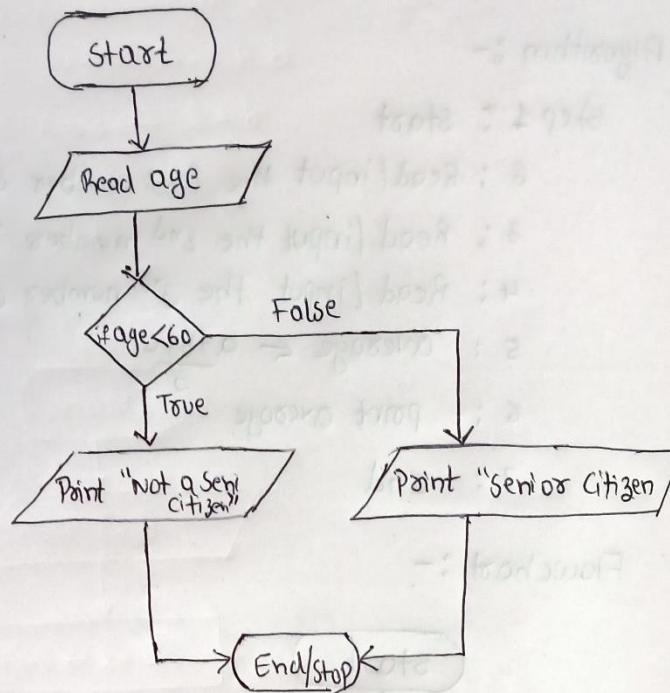Flowchart :-

```
        ( Start )
            |
            v
       / Read l, b /
            |
            v
     | Area ← l * b |
            |
            v
      / Print Area /
            |
            v
        ( Stop )
```
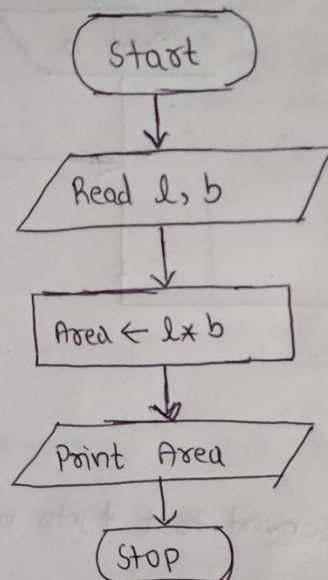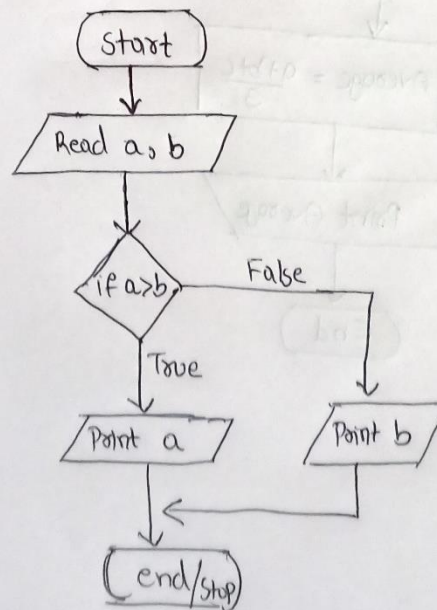
2] Flowcharts.

a] Read age of a person, if age < 60 then print
"Not a Senior Citizen" otherwise print "Senior Citizen"

```
              ┌──────────┐
              │  Start   │
              └──────────┘
                   │
                   ▼
            ╱────────────╱
           ╱  Read age  ╱
          ╱────────────╱
                   │
                   ▼
              ◇─────────◇           False
              ◇ if age<60 ◇ ──────────────────┐
              ◇─────────◇                      │
                   │ True                      │
                   ▼                           ▼
       ╱───────────────────╱        ╱──────────────────────╱
      ╱ Print "Not a Senior ╱      ╱ Print "Senior Citizen" ╱
     ╱      Citizen"        ╱      ╱──────────────────────╱
    ╱───────────────────╱                      │
                   │                           │
                   ▼                           │
              ┌──────────┐                     │
              │ End/Stop │◄────────────────────┘
              └──────────┘
```
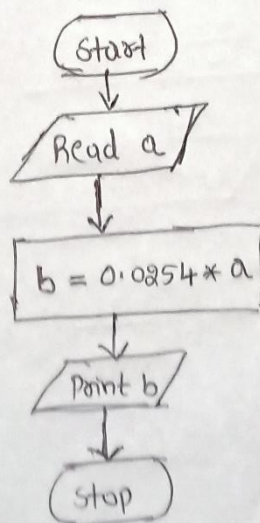
2] b] Read 2 number & print Max of 2 number

```
              ┌──────────┐
              │  Start   │
              └──────────┘
                   │
                   ▼
            ╱────────────╱
           ╱  Read a, b ╱
          ╱────────────╱
                   │
                   ▼
              ◇─────────◇           False
              ◇  if a>b  ◇ ──────────────────┐
              ◇─────────◇                     │
                   │ True                      │
                   ▼                           ▼
           ╱──────────╱              ╱──────────╱
          ╱ Print a  ╱              ╱ Print b  ╱
         ╱──────────╱              ╱──────────╱
                   │                           │
                   ▼◄──────────────────────────┘
              ┌──────────┐
              │ end/stop │
              └──────────┘
```

2] C] Read 3 number print smallest

Start

Read a, b, c

a ≥ b —— False ——> b < c —— False ——>

True ↓   True ↓   Print C

a ≤ c   Print b

Print a

end/stop
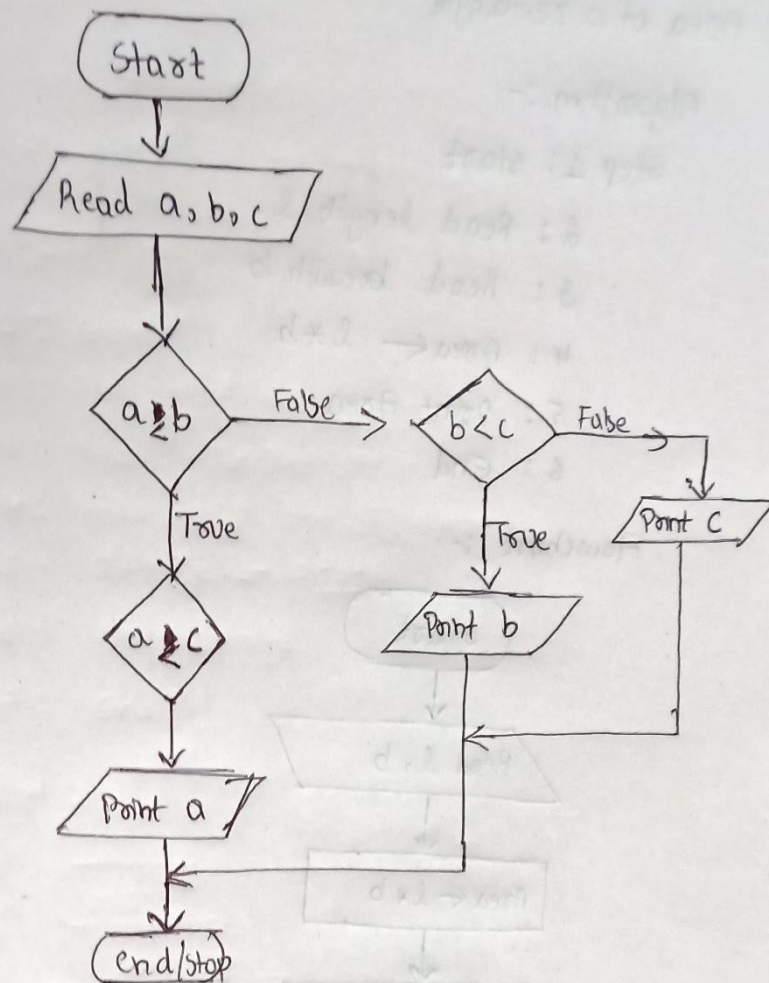
2] D] Read num in inches & convert to it into meters

Start

Read a

b = 0.0254 * a

Print b

Stop

2] e] Print 2, 4, 6, 8, 10

```
            ( Start )
                |
                v
    | Print 2, 4, 6, 8, 10 |
                |
                v
            ( Stop )
```