* Assignment

① @ Find the average of three numbers a, b and c.

Sol Algorithm :-

* step 1 :- start
* step 2 :- Read the first number a
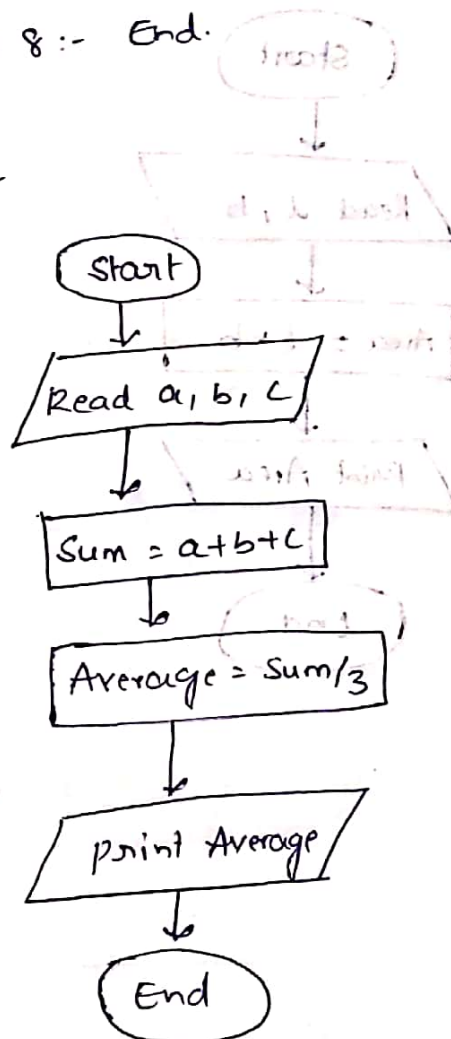* step 3 :- Read the second number b
* step 4 :- Read the third number c
* step 5 :- sum = a + b + c
* step 6 :- Average = sum/3.
* step 7 :- print Average
* step 8 :- End.

Flow chart :-

Start

Read a, b, c

Sum = a+b+c

Average = Sum/3

Print Average

End

(b) Find the area of rectangle whose length and breadth are given.

Sol Algorithm:

* step 1:- Start
* step 2:- Read the length of rectangle 'l'
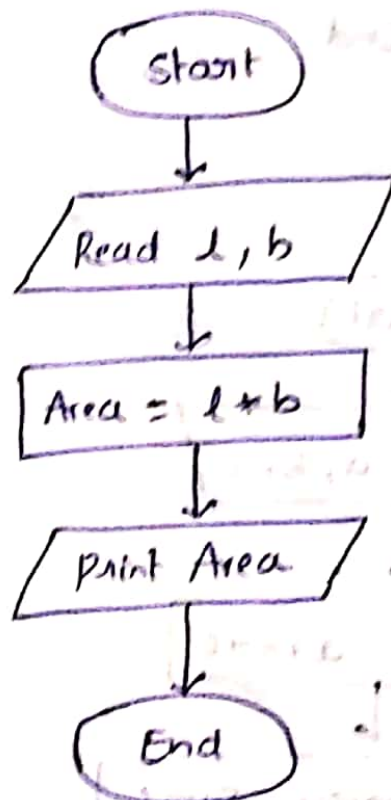* step 3:- Read the breadth of rectangle 'b'
* step 4:- Area = length (l) * breadth (b).
* step 5:- print Area
* step 6:- End.

Flow chart:-

```
      ( Start )
          |
          v
    / Read l, b /
          |
          v
    [ Area = l*b ]
          |
          v
    / Print Area /
          |
          v
      ( End )
```

② @ Read the age of person. If age less than 60 then print "Not a senior citizen" otherwise print "senior citizen"

Sol   Flowchart

```
                    ┌─────────┐
                    │  start  │
                    └────┬────┘
                         ↓
        ╱─────────────────────────────────╲
       ╱  Read the age of person           ╲
      ╱─────────────────────────────────────╲
                         ↓
       Yes        ◇                   No
      ┌──────────◇ age < 60 ◇──────────┐
      │           ◇                    │
      ↓                                ↓
 ╱──────────────────╲        ╱──────────────────╲
╱ Not a senior citizen      ╱ Senior citizen
╲──────────────────╱        ╲──────────────────╱
      │                                │
      └────────────────┬───────────────┘
                       ↓
                  ┌─────────┐
                  │   End   │
                  └─────────┘
```
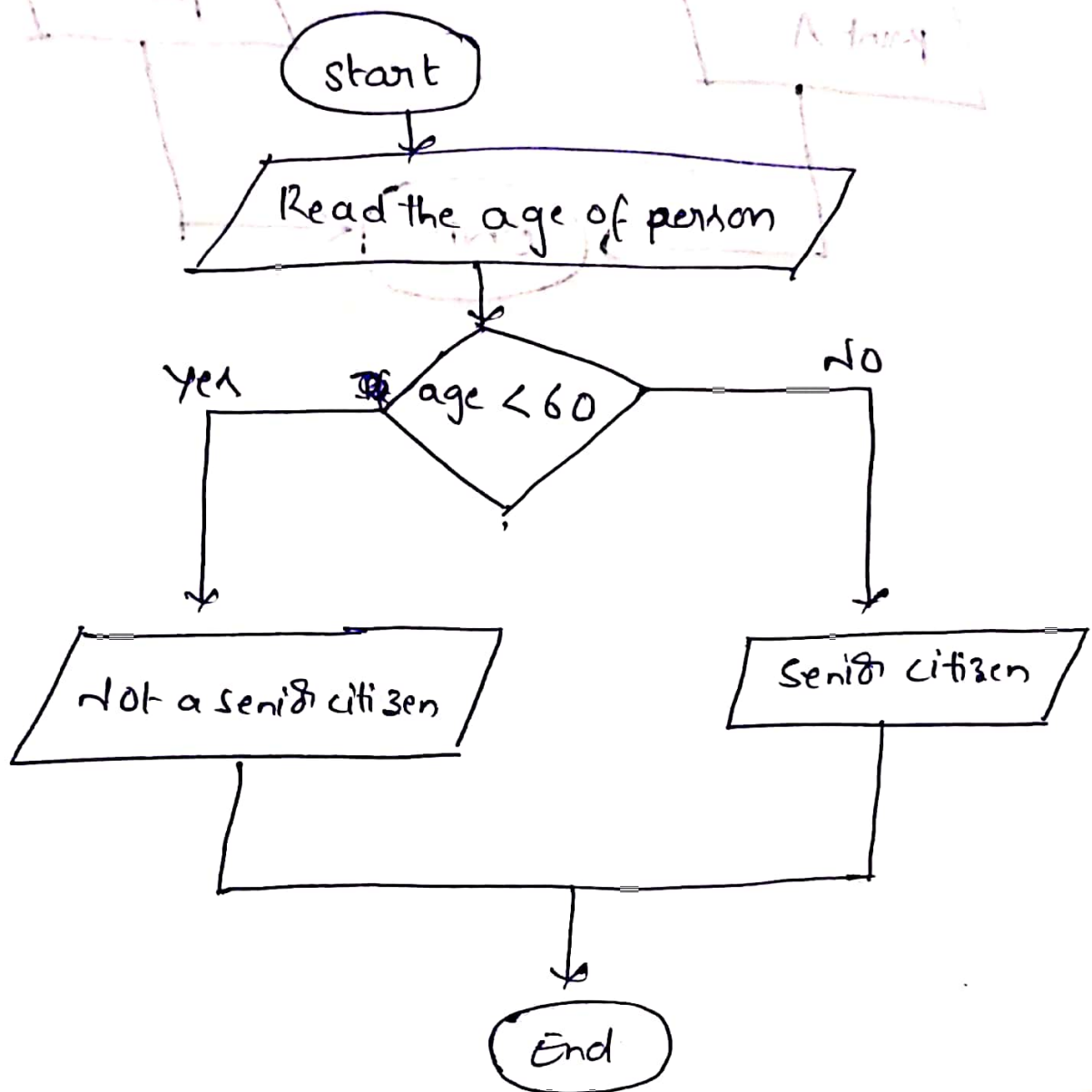
ⓑ Read two numbers and print maximum of 2 numbers

sol. Flow chart:

```
              ┌─────────┐
              │  Start  │
              └────┬────┘
                   │
                   ▼
    ┌──────────────────────────────────┐
    │ Read the first number A          /
    └──────────────┬───────────────────┘
                   │
                   ▼
    ┌──────────────────────────────────┐
    │ Read the second Number B         /
    └──────────────┬───────────────────┘
                   │
                   ▼
              ╱◇╲
    True    ╱     ╲    False
   ┌───────◇ If A > B ◇───────┐
   │        ╲     ╱           │
   │         ╲ ◇╱             │
   ▼                          ▼
┌────────┐              ┌────────┐
/ Print A /              / Print B /
└───┬────┘              └───┬────┘
    │                       │
    │       ┌──────┐        │
    └──────▶│ END  │◀───────┘
            └──────┘
```
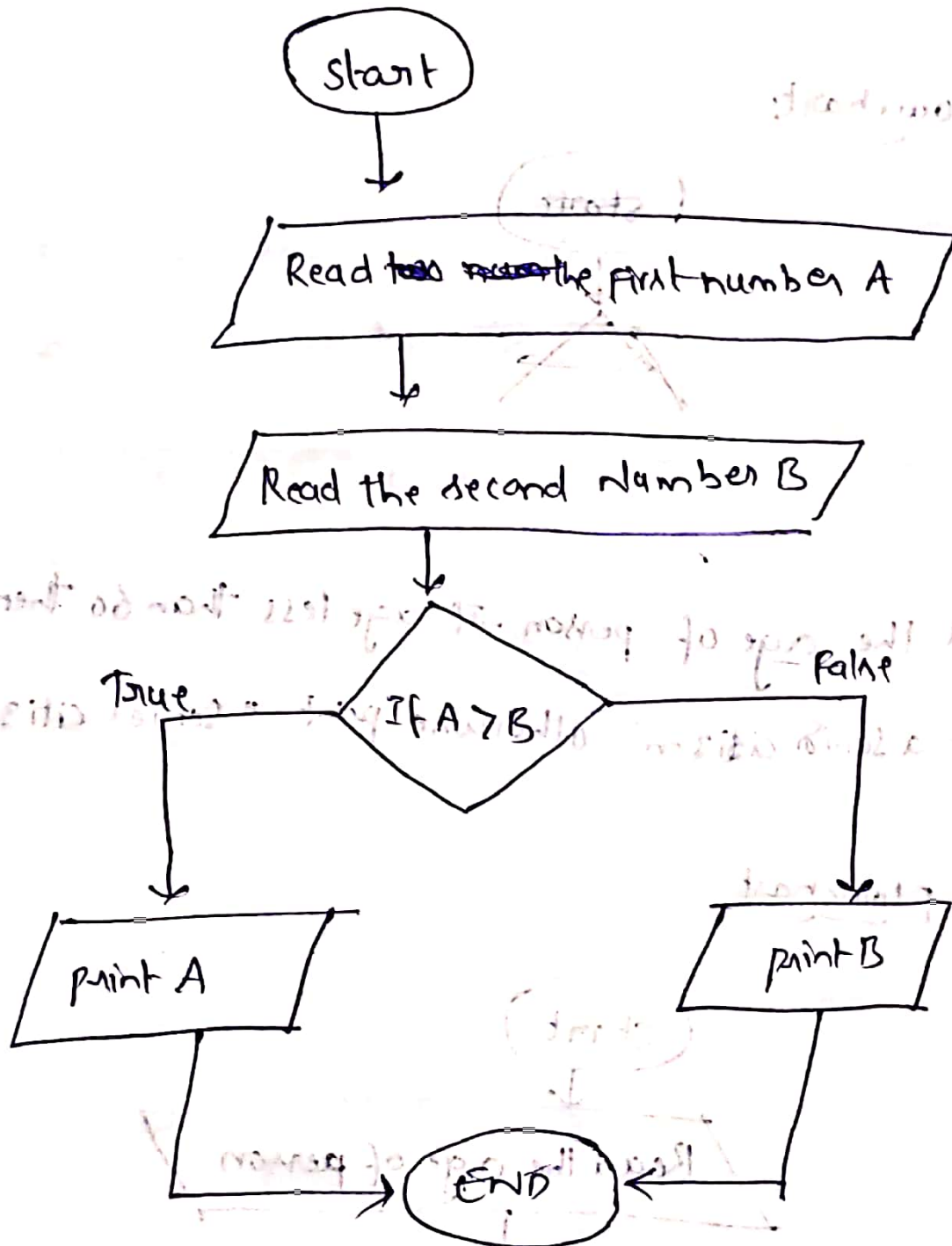
(c) Read three numbers and print smallest among 3 numbers

sol) Flow chart.

```
                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
                         │
                         ▼
              ╱──────────────────╲
             ╱  Read the three     ╲
            ╱     numbers           ╲
            ╲    as A, B, C         ╱
             ╲──────────────────────╱
                         │
                         ▼
                    ╱────────╲
        yes        ╱   is     ╲        NO
      ◄───────────╱   A < B    ╲───────────►
      │           ╲            ╱           │
      │            ╲──────────╱            │
      ▼                                    ▼
 ╱─────────╲    NO                     ╱─────────╲
╱ is A < C  ╲──────────────┐    NO ───╱ is B < C  ╲
╲           ╱              │  ────────╲           ╱
 ╲─────────╱               │           ╲─────────╱
      │ yes                │                │
      ▼                    ▼                ▼
 ┌─────────┐      ┌──────────────┐   ┌──────────────┐
 │  print  │      │  print 'C' is│   │  print B' is │
 │ 'A' in the│    │ the smallest │   │ the smallest │
 │ smallest number│  number      │   │   number     │
 └─────────┘      └──────────────┘   └──────────────┘
```

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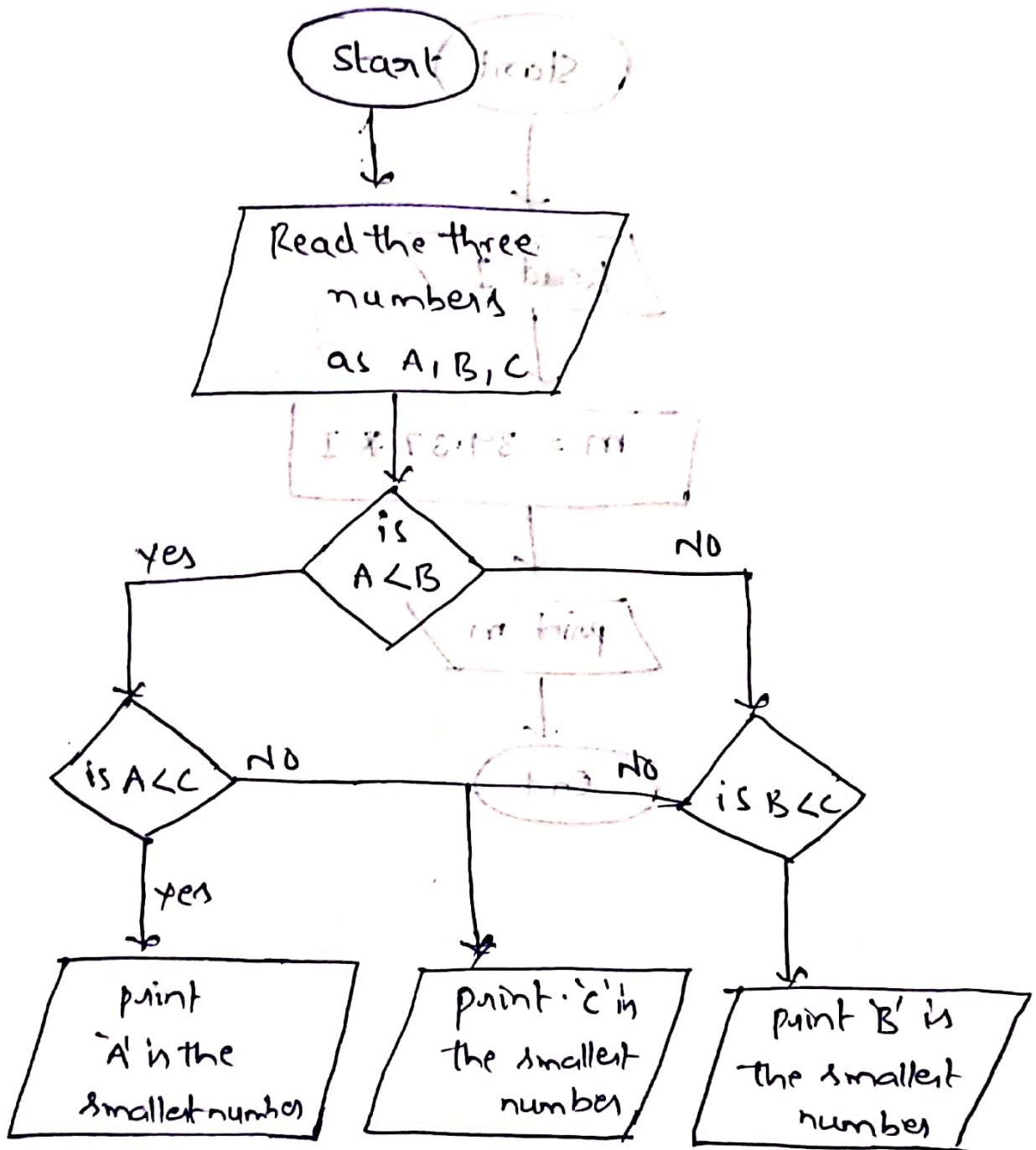
(d) Read a number in inches and convert it into meters

sol: Flowchart:-

```
        ( Start )
            │
            ▼
      / Read I /
            │
            ▼
   │ m = 39.37 * I │
            │
            ▼
      / print m /
            │
            ▼
        ( End )
```

e) print 2, 4, 6, 8, 10.

sf flowchart

```
           ┌─────────┐
           │  Start  │
           └─────────┘
                │
                ▼
           ┌─────────┐
           │  I = 0  │
           └─────────┘
                │
                ▼
         ┌──────────────┐
         │  · print I   │◄─────────┐
         └──────────────┘          │
                │                  │
                ▼                  │
         ┌──────────────┐          │
         │  I = I + 2   │          │
         └──────────────┘          │
                │                  │
                ▼          yes     │
            ◇─────────◇────────────┘
            │ I <= 10 │
            ◇─────────◇
                │
                │ No
                ▼
           ┌─────────┐
           │  Stop   │
           └─────────┘
```