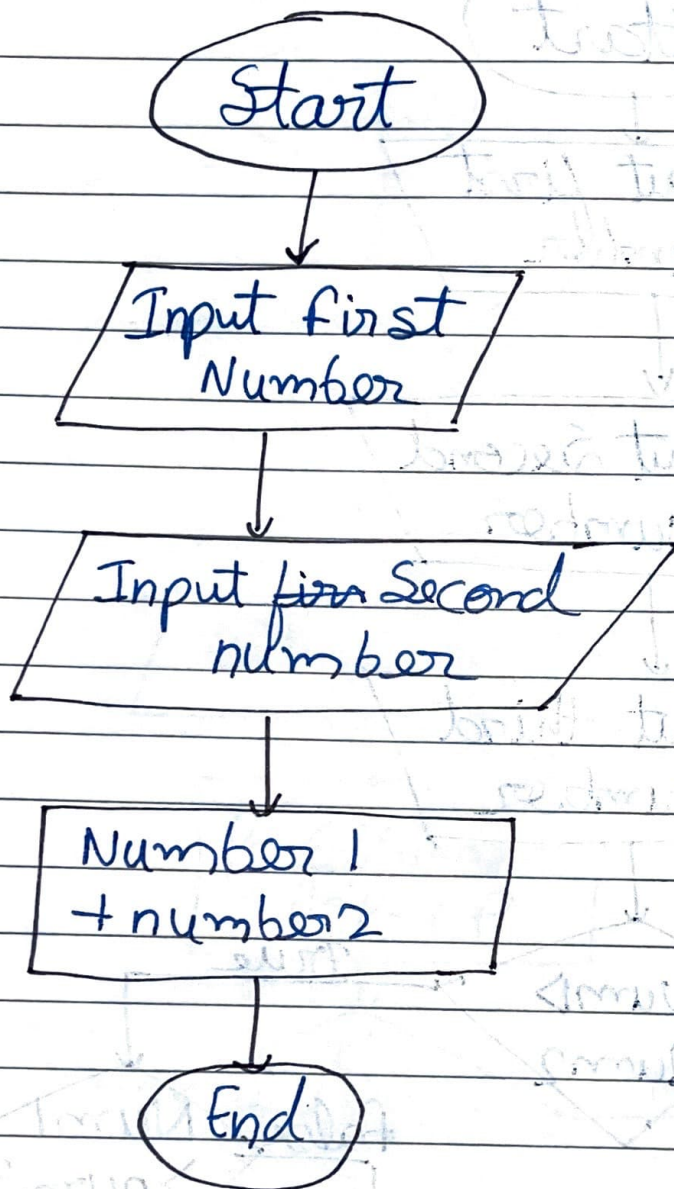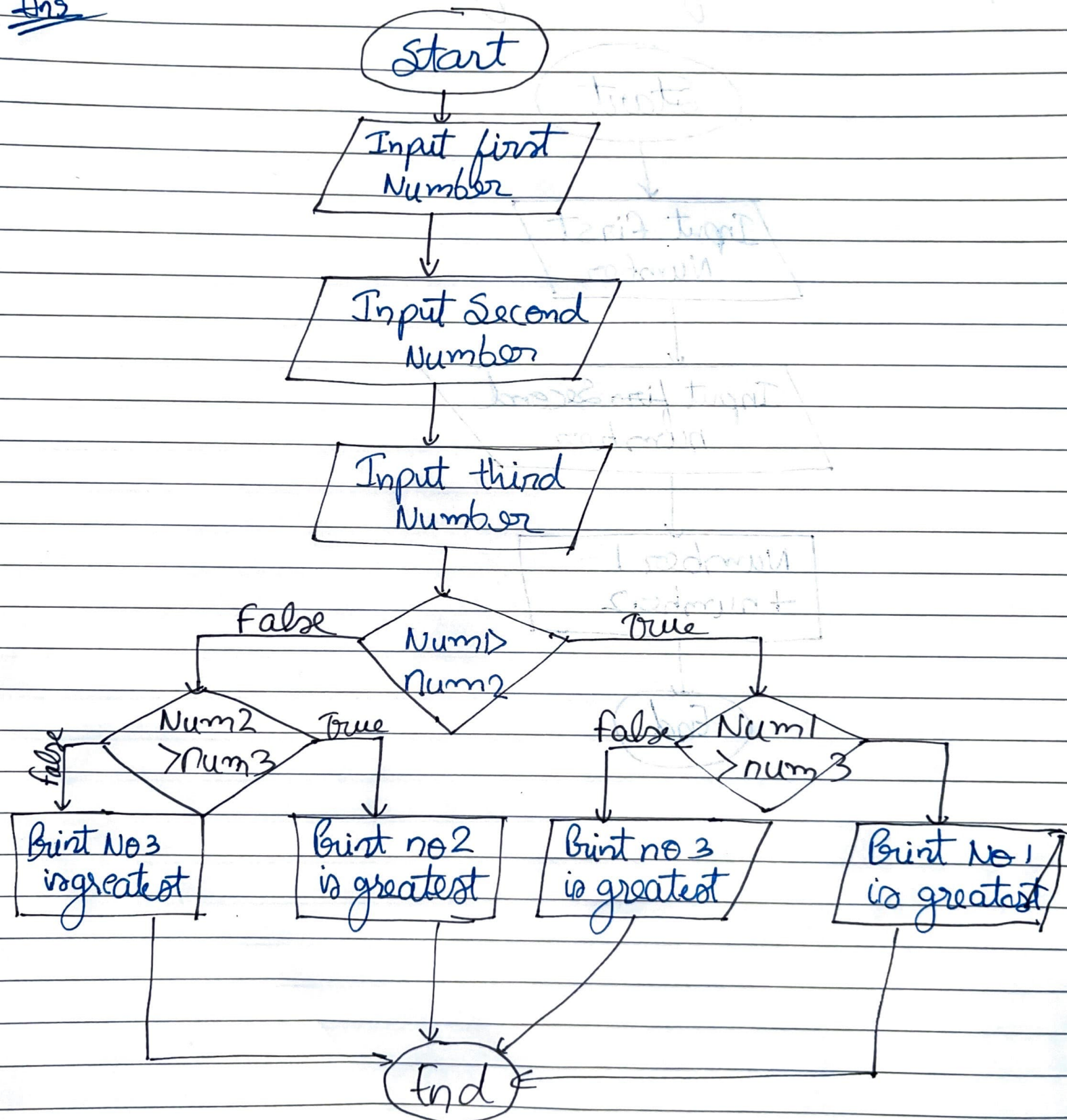# EXPERIMENT-5

Q1) Flowchart for adding two numbers.
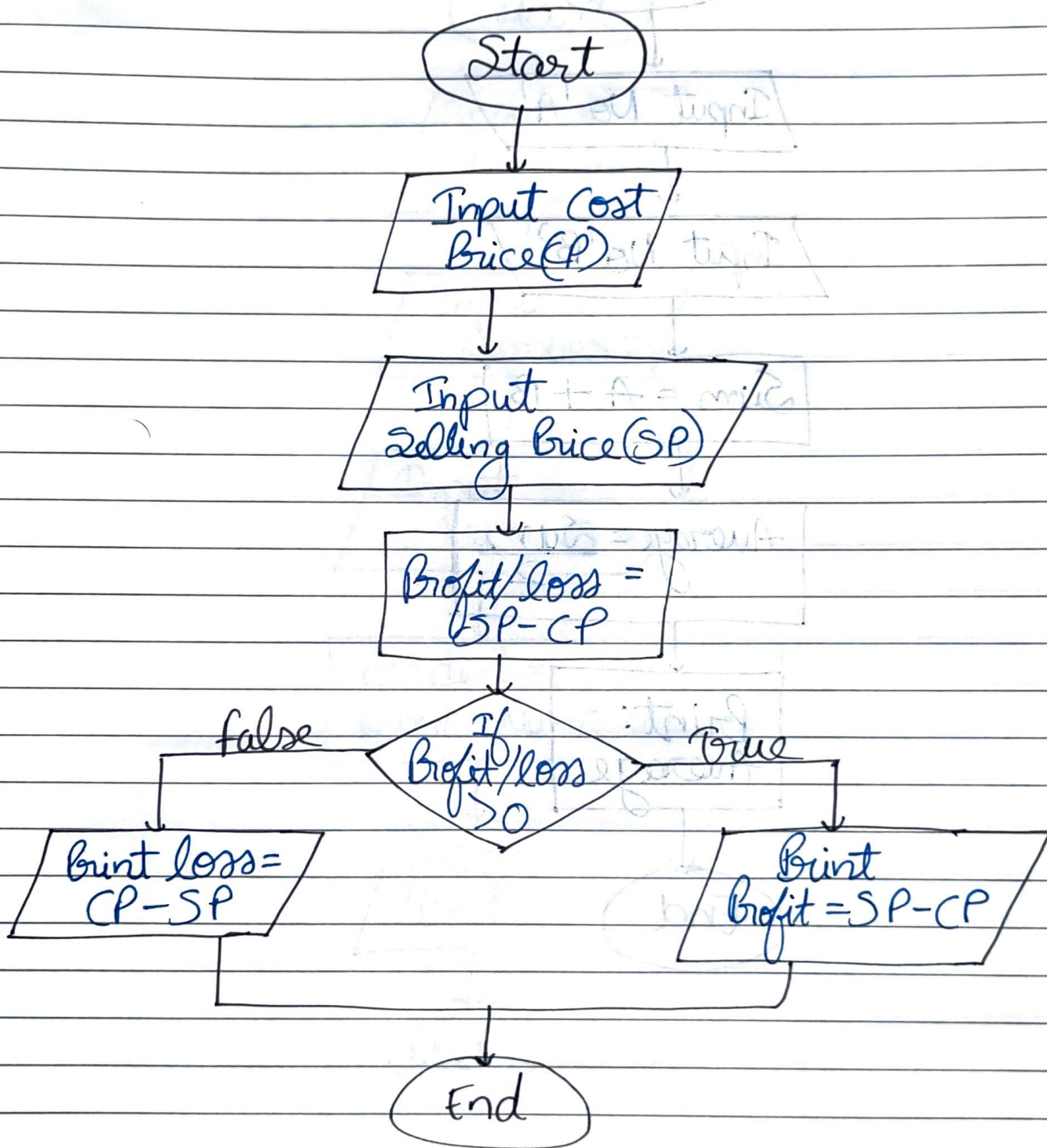
**Q2) flowchart for finding greatest of three entered numbers.**

Ans

```
                    ┌─────────────┐
                    │    Start    │
                    └─────────────┘
                           │
                    ┌──────────────┐
                    │ Input first  │
                    │   Number     │
                    └──────────────┘
                           │
                    ┌──────────────┐
                    │ Input Second │
                    │   Number     │
                    └──────────────┘
                           │
                    ┌──────────────┐
                    │ Input third  │
                    │   Number     │
                    └──────────────┘
                           │
          False    ◇ Num1 > Num2 ◇    True
          │                               │
    ◇ Num2 > num3 ◇ True        False ◇ Num1 > num3 ◇
    │false        │                 │              │
┌──────────┐ ┌──────────┐    ┌──────────┐  ┌──────────┐
│Print No3 │ │Print no2 │    │Print no 3│  │Print No1 │
│is greatest│ │is greatest│   │is greatest│  │is greatest│
└──────────┘ └──────────┘    └──────────┘  └──────────┘
                           │
                    ┌─────────────┐
                    │     End     │
                    └─────────────┘
```
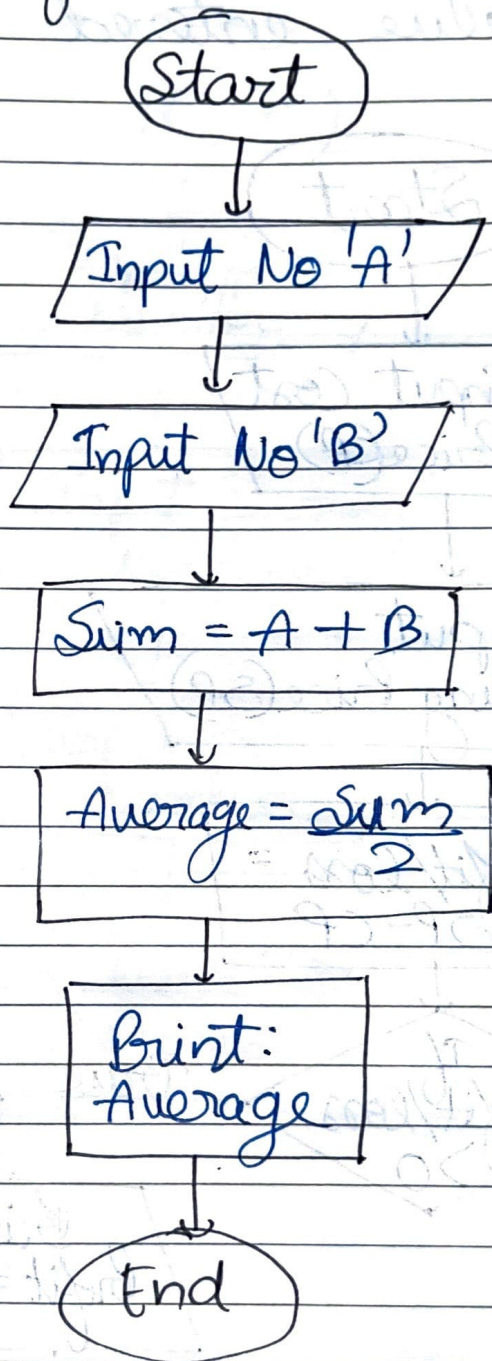
03) Design a flowchart for calculating the profit & loss acc. to the cost price & income value entered by the user.

```
                    ( Start )
                        |
                        v
               +-----------------+
               | Input Cost      |
               | Price (CP)      |
               +-----------------+
                        |
                        v
               +-----------------+
               | Input           |
               | Selling Price(SP)|
               +-----------------+
                        |
                        v
               +-----------------+
               | Profit/loss =   |
               | SP - CP         |
               +-----------------+
                        |
                        v
      false         / If      \        True
   +--------------<  Profit/loss  >--------------+
   |               \   > 0      /                |
   v                   \     /                   v
+------------+                          +----------------+
| Print loss=|                          | Print          |
| CP - SP    |                          | Profit = SP-CP |
+------------+                          +----------------+
   |                                            |
   +--------------------+-----------------------+
                        |
                        v
                     ( End )
```

**Q4** Design a flowchart to calculate the average of two Numbers.

$$\boxed{\text{Start}}$$

↓

/ Input No 'A' /

↓

/ Input No 'B' /

↓

| Sum = A + B |

↓

| Average = $\dfrac{Sum}{2}$ |

↓

| Print: Average |

↓

$$\boxed{\text{End}}$$

05) Design a flowchart for the multiplica-
multiplication of the three No. entered
by the war.

Ans

```
        ( Start )
            |
            v
    / Input          /
   /  Number 1      /
            |
            v
    / Input          /
   /  Number 2      /
            |
            v
    / Input          /
   /  Number 3      /
            |
            v
  | Product =              |
  | Num1 x Num2 x num3     |
            |
            v
    / Print:         /
   /  "Product      /
            |
            v
        ( End )
```
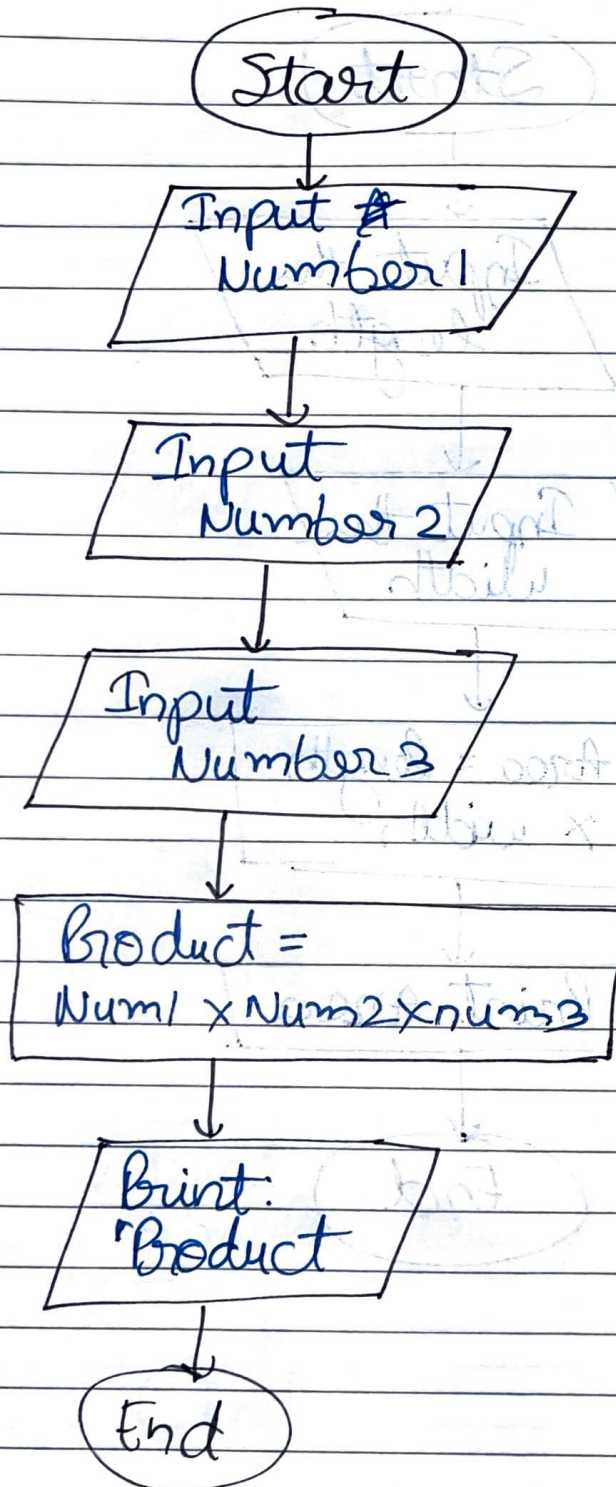
**06)** Design a flowchart for calculating the area of a rectangle.

```
        ( Start )
            |
            v
     / Input the   /
    /   length    /
            |
            v
    / Input the  /
   /   Width     /
            |
            v
   | Area = length |
   |   x width     |
            |
            v
   / Print Area /
            |
            v
        ( End )
```
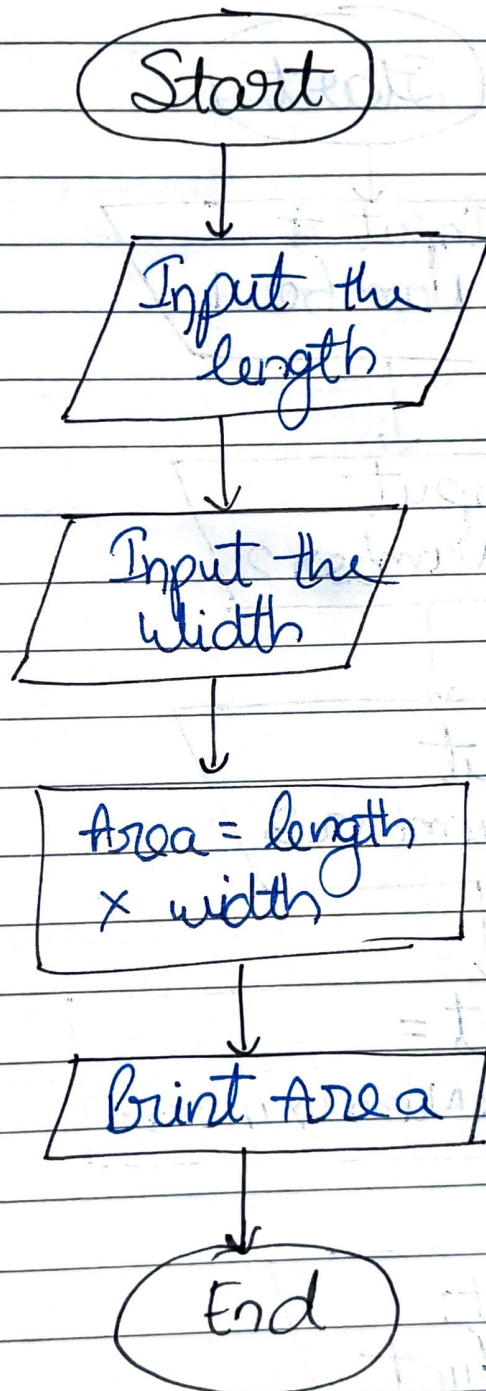
**07)** Design a flowchart for calculating Simple Interest according to the value of principal amount, ROI & time the user ~~eint~~ enters.

```
                    ┌─────────┐
                   (  Start   )
                    └────┬────┘
                         │
                         ▼
                ╱─────────────────╱
               ╱  Input "PA"     ╱
              ╱─────────────────╱
                         │
                         ▼
                ╱─────────────────╱
               ╱  Input ROI      ╱
              ╱─────────────────╱
                         │
                         ▼
                ╱─────────────────╱
               ╱  Input T        ╱
              ╱─────────────────╱
                         │
                         ▼
          ┌───────────────────────────┐
          │  Simple Interest (SI)     │
          │  = (PA × ROI × T)         │
          │  ─────────────────        │
          │        100                │
          └────────────┬──────────────┘
                       │
                       ▼
              ╱─────────────────────╱
             ╱  Print -            ╱
            ╱  Simple Interest    ╱
           ╱─────────────────────╱
                       │
                       ▼
                  ┌─────────┐
                 (  End     )
                  └─────────┘
```

$$SI = \frac{PA \times ROI \times T}{100}$$
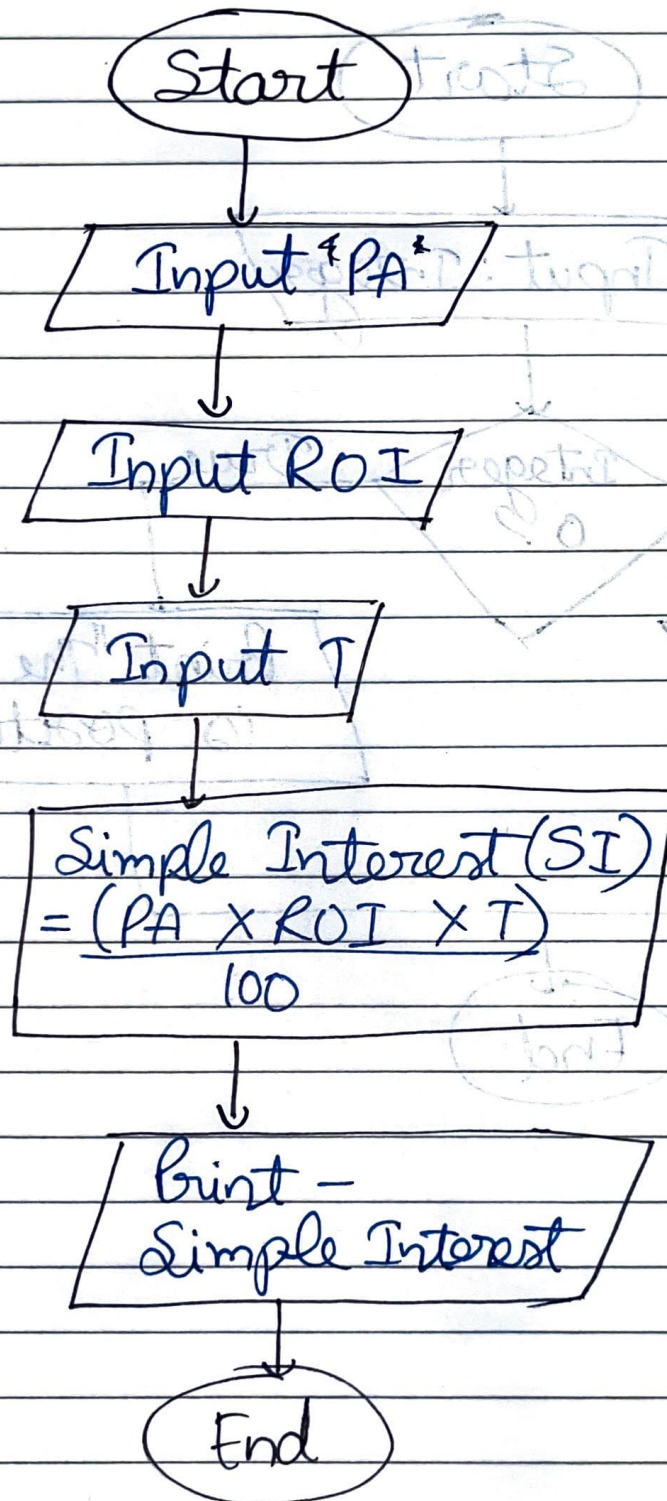
Q8) Design a flowchart for checking whether the number is positive or negative acc. to the number entered by the user.

```
                    ( Start )
                        |
                        v
              / Input : Integer /
                        |
                        v
    false          < Integer    >          True
   +----------------<    0 ?     >----------------+
   |                 \          /                 |
   |                  \        /                  |
   v                   \      /                   v
/ Print "The    /      \    /       / Print "The no /
/ No is negative/                   / is positive"  /
   |                                            |
   +-------------------+    +-------------------+
                       |    |
                       v    v
                     ( End )
```