

PROBLEM 3.8

Given a point (x,y), write a program to find out if it lies on X-axis, Y-axis or origin.

ALGORITHM

1. Start
2. Declare float variables x and y
3. If $x == 0$ and $y == 0$, display "The point lies on origin"
4. Else if $x = 0$ and $y != 0$, display "The point lies on Y-axis"
5. Else if $x != 0$ and $y = 0$, display "The point lies on X-axis"
6. Stop

PSEUDOCODE

```
DECLARE FLOAT x,y
IF x = 0 AND y = 0
    DISPLAY "The point lies on origin"
ELSE IF x = 0 AND y != 0
    DISPLAY "The point lies on Y - axis"
ELSE IF x != 0 AND y = 0
    DISPLAY "The point lies on X - axis"
ENDIF
```

FLOWCHART

```
flowchart TD
    A([Start]) --> B[Declare float variables x,y]
    B --> C{If x = 0 and y = 0}
    C --> |True| D[/DISPLAY "The point lies on origin"/]
    C --> |False| E{If x = 0 and y != 0}
    E --> |True| F[/DISPLAY "The point lies on Y-axis"/]
    E --> |False| G{If x != 0 and y = 0}
    G --> |True| H[/DISPLAY "The point lies on X - axis"/]
    D --> I([Stop])
    F --> I
    H --> I
```