## Cartesian System

## 5.3

> The Cartesian system is named after a French philosopher, scientist and mathematician Rene Descartes who Latinized his name to Cartesius who lived in $17^{\text {th }}$ century Europe. His most famous quote is: "I think, therefore I am."
$>$ A Cartesian system in two dimensions divides a 2D plane in four quarters called quadrants.
$>$ This division is done by two perpendicular axes:

- The horizontal axis = $\qquad$
- The vertical axis = $\qquad$
$>$ The point of intersection of the two axis is called the $\qquad$


## Plotting Points in the Cartesian $=$ Coordinate System

Recall: Every point in a 2D plane can be described using two coordinates. These coordinates are written inside round brackets (parentheses) and are separated by a comma. Points are given labels using capital letters of English alphabet.

Task 1:

- Using a ruler and a pencil, draw in the horizontal axis and label it " $x$ ". Then draw in the vertical axis and label it " $y$ ". Aim for the origin in the center of the given grid.
- Plot and label the following points.

| $A=(-4,8)$ | $B=(2,-6)$ | $C=(0,5)$ | $D=(-4,8)$ | $E=(-10,0)$ | $F=(-4,-5)$ |
| :--- | :--- | :--- | :--- | :--- | :--- |



- After plotting the above points, determine their quadrant:

| Point | $A$ | $B$ | $C$ | $D$ | $E$ | $F$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Quadrant |  |  |  |  |  |  |

