

PAC Chart:

| <i>DATA GIVEN</i> | <i>REQUIRED RESULT(S)</i> |
|--|--|
| → x-Coordinate of Point. → y-Coordinate of Point. | → Quadrant the point lies in. |
| <i>REQUIRED PROCESSING</i> | <i>SOLUTION ALTERNATIVES</i> |
| → Check the sign of x-Coordinate, → Check the sign of y-Coordinate, → Use the signs of coordinates to figure out its Quadrant: 1) In Quadrant I, both x and y are positive, 2) In Quadrant II, x is negative, and y is positive, 3) In Quadrant III, both x and y are negative, 4) In Quadrant IV, x is positive, and y is negative. | → In case any of the coordinates is 0, it would mean that the point lies on either x-Axis or y-Axis. |

IPO Chart:

| <i>INPUT</i> | <i>PROCESS</i> | <i>OUTPUT</i> |
|----------------------------------|--|----------------------|
| → x-Coordinate → y-Coordinate | → IF $x > 0$ and $y > 0$ THEN Quadrant = I → IF $x < 0$ and $y > 0$ THEN Quadrant = II → IF $x < 0$ and $y < 0$ THEN Quadrant = III → IF $x > 0$ and $y < 0$ THEN Quadrant = IV → OTHERWISE Point lies on Axes → Display Quadrant (or Axes) | → Quadrant or Axes |