Exp No: 7 Program for Ellipse Drawing (midpoint) Date: ????????

Aim: To Implement Algorithm for midpoint Ellipse Drawing

Theory:

Mid-point Ellipse algorithm is used to draw an ellipse in computer graphics. Midpoint ellipse algorithm plots(finds) points of an ellipse on the first quadrant by dividing the quadrant into two regions.

Each point(x, y) is then projected into other three quadrants (-x, y), (x, -y), (-x, -y) i.e. it uses 4-way symmetry.

Function of ellipse:

$$f_{ellipse}(x, y)=r_y^2x^2+r_x^2y^2-r_x^2r_y^2$$

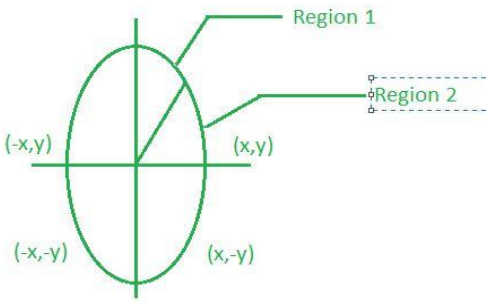
$f_{ellipse}(x, y)<0$ *then (x, y) is inside the ellipse.*

$f_{ellipse}(x, y)>0$ *then (x, y) is outside the ellipse.*

$f_{ellipse}(x, y)=0$ *then (x, y) is on the ellipse.*

Procedure:

U shld draw this rep diagram along vth procedure



Write Algm for region1 and region2

Write source code

Draw output

Conclusion: ?????????