

Name - Shriyansh Rauthan Roll-No - 1121138

Q3

Algorithm -

Step 1 - Start

Step 2 - Declare  $x, y, r, a, b$  and  $d$  as  $\text{int}$  variables, where  $(a, b)$  are - coordinates of the center

Step 3 - find decision parameter  $D = 3 - 2r$   
 $\therefore r$ : radius

Step 4 - put  $x = 0, y = r$

Step 5 - if  $x \geq y$   
Use eight-way symmetry

Step 6 - if  $D < 0$

then  $D = D + 4x + 6$   
 $x = x + 1$

if  $D \geq 0$

then  $D = D + 4(x - y) + 10$

$$n = n + 1$$

$$y = y - 1$$

Step 7: End.