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Ans:- Mid point circle drawing Algorithm

Step1:- Start Algorithm

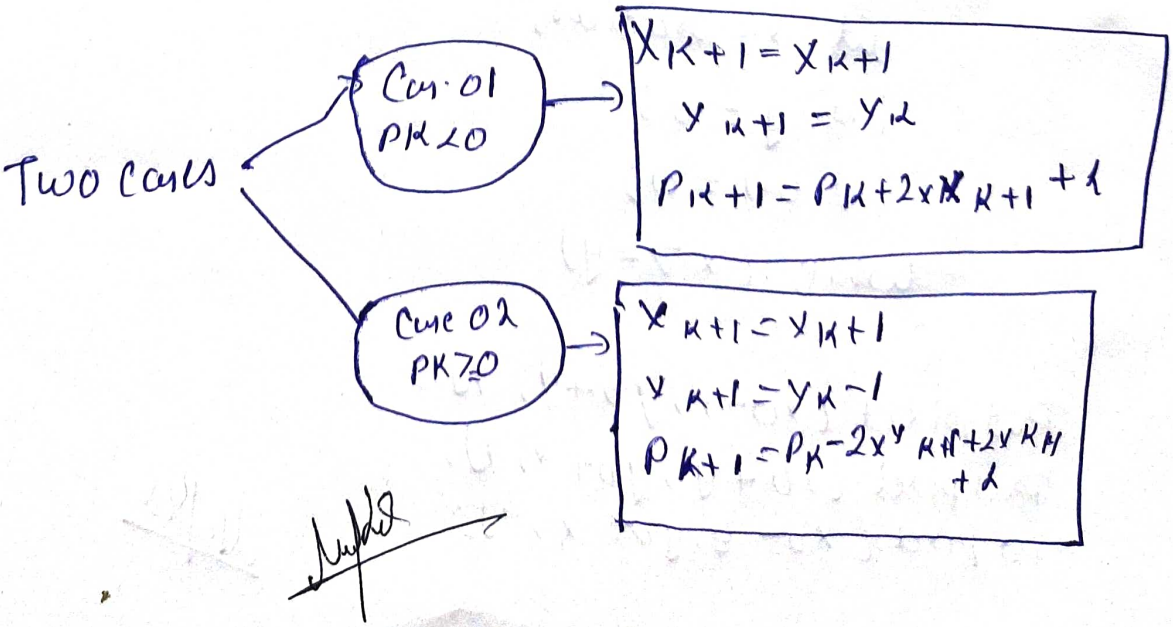
Step2:- Assign the starting point coordinate (x_0, y_0) as

- $x_0 = 0$
- $y_0 = R$

Step3:- Calculate the value of initial design parameter P_0 as-

$P_0 = 1 - R$.

Step4:- Suppose the current point is (x_k, y_k) & the next point is (x_{k+1}, y_{k+1}). find the next point of the first octant depend on the value of decision parameter P_k.



Step5:- If the given center point (x_0, y_0) is not $(0, 0)$, then do the following & plot the point.

- $x_{plot} = x_c + x_0$
- $y_{plot} = y_c + y_0$

Step6:- Keep repeating step4 & step-5 until $x_{plot} >= y_{plot}$

Step7:- Step6 generate all the points for one octet so find the points for other seven octan.

Step8:- Stop.

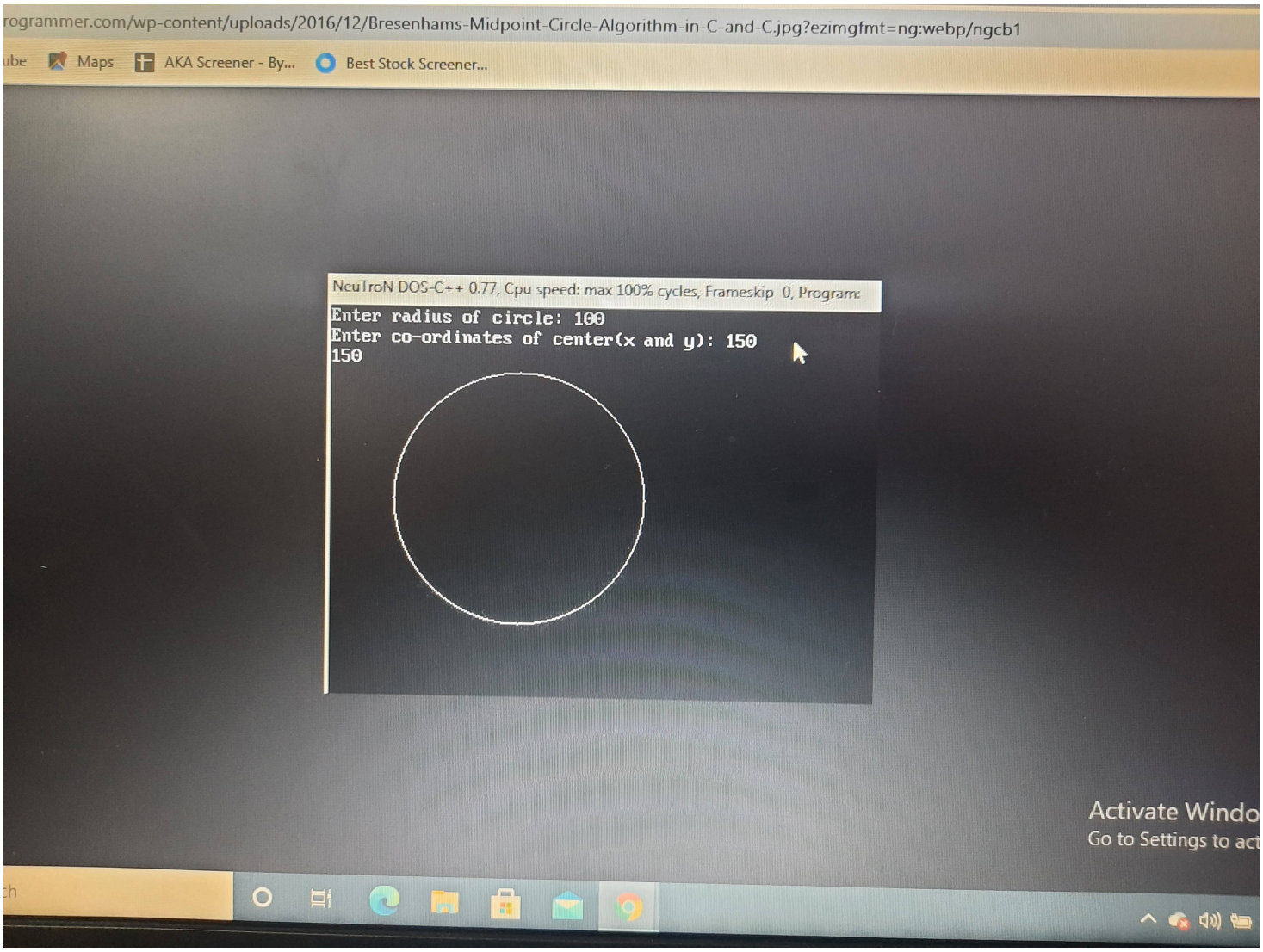
Program

```
#include <stdio.h>
#include <graphic.h>
void drawing (int x0, int y0, int radius)
{
    int x = radius;
    int y = 0;
    int err = 0;
    while (x >= y)
    {
putpixel (x0+x, y0+y, 7);
putpixel (x0+y, y0+x, 7);
putpixel (x0-y, y0+x, 7);
```

```
Putpixel(xo-x, yo+y, 7);
Putpixel(xo-x, yo-y, 7);
Put pixel(xo-y, yo-x, 7);
Put pixel(xo+y, yo-x, 7);
Put pixel(xo+x, yo-y, 7);

if (cur<=0)
{
    y++;
    cur += 2*y+1;
}
  if (cur>0)
{   x--;
  cur -=2*x+1;
}
  }
}
  int main()
  {  int gdriver = DETECT, gmode, error, x, y, r;
     int graphdriver, &gmode);
  Printf("enter radius of circle");
  Scanf("%d", &r);
  Printf("enter co-ordinates of center (x & y): ");
  Scanf("%d %d", &x, &y);
  drawcircle(x, y, r);
    return 0;
  }
```

Rajput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ube
Maps
AKA Screener - By...
Best Stock Screener...
NeuTroN DOS-C++ 0.77, Cpu speed: max 100% cycles, Frameskip 0, Program:
Enter radius of circle: 100
Enter co-ordinates of center(x and y): 150
150
Activate Windo
Go to Settings to act