Write a program to implement the Mid-Point Circle Drawing Algorithm.

```
#include <graphics.h>
#include <conio.h>
#include <iostream.h>
#include <math.h>

drawacircle(int X0, int Y0, int r)
{
      int x = 0, y = r;
      int p = 1 – r;

      while (x <= y)
      {
            putpixel(x + X0, y + Y0, WHITE);
            putpixel(-x + X0, -y + Y0, WHITE);
            putpixel(x + X0, -y + Y0, WHITE);
            putpixel(-x + X0, y + Y0, WHITE);
            putpixel(y + X0, x + Y0, WHITE);
            putpixel(-y + X0, -x + Y0, WHITE);
            putpixel(y + X0, -x + Y0, WHITE);
            putpixel(-y + X0, x + Y0, WHITE);

            if (p < 0)
            {
                  x++;
                  p = p + 2 * x + 1;
            }
            else
            {
                  x++;
                  y--;
                  p = p + 2 * x - 2 * y + 1;
            }
      }
}

int main()
{
      clrscr();
      int gd = DETECT, gm;
      initgraph(&gd, &gm, "C:\\TURBOC3\\BGI");
      drawacircle(300,300,100);
      getch();
      return 0;
}
```