Q3 Bresenham circle Drawing algorithm

This can be decided by the decision parameter d.

- If

Q3 Bresenham circle Drawing Algorithm

- If $d <= 0$, then $NX+1$, $YX+1$, y is to be chosen as next pixel.
- If $d > 0$, then $SX+1$, $Y-1$ $X+1$, $y-1$ is to chosen as the next pixel.

Step 1:- Get the co-ordinates of the centre of the circle and Radiw, and store them in x, y, and R respectively. Set $P=0$ and $Q=R$.

Step 2:- Set decision parameter $D = 3-2R$.

Step 3:- Repeat through step-8 while $P \leq Q$.

Step 4:- Call Draw circle X, Y, P, Q X, y, P, Q

Step 5:- Increment the value of P.

Step 6:- If $D<0$ then $D = D+4p+6$.

Step 7:- Else Set $R = R-1$, $D = D+4P-QP-Q+10$.

Step 8:- Call Draw circle X, Y, P, Q x, y, P, Q.

Pragati Rawat

Code

```
#include<stdio.h>
#include<graphics.h>
void main()
{
  int gd = DETECT, gm;
 int r, x, y, p, xc = 320, yc = 240;
 printf("Enter the radius");
 scanf("%d", &r);
 initgraph(&gd, &gm, "");
   x = 0;
   y = r;
 putpixel(xc+y xc+x, yc-y, 1);
   p = 3-(2*r);
   for(x=0; x<=y; x++)
    {
      if(p<0)
       {
         y = y;
         p = (p+(4*x)+6);
       }
      else
       {
         y = y-1;
         p = p+((4*(x-y)+10));
       }
```

Rahi Rawat

```
putpixel(xc+x, yc-y, 1);
putpixel (xc-x, yc-y, 2);
putpixel(xc+x, yc+y, 3);
putpixel (xc-x , yc+y, 4);
 putpixel ( xc+y, yc-x, 5);
  putpixel ( xc-y, yc-x, 6);
   putpixel ( xc+y, yc+x, 7);
    putpixel (xc-y, yc+x, 8);
}
    getch();
    closegraph();
}
```

Pradeep Rawat