DRAW CIRCLE USING DIRECT ALGORITHM

```cpp
#include<graphics.h>

#include<iostream.h>

#include<stdio.h>

#include<conio.h>

void main()

{

    int gd=DETECT, gm;

    float x1,x2,y1,y2,x,y,m,c,dx,dy,clr;

    initgraph(&gd,&gm," ");

    cout<<"enter the value of x1,y1,x2,y2 and color";

    cin>>x1>>y1>>x2>>y2>>clr;

    x=x1;

    y=y1;

    dx=x2-x1;

    dy=y2-y1;

    m=dy/dx;

    c=y-m*c;

    if(dx==0)

    {

        for(;y<=y2;y++)

        {

            x=x1;

            putpixel(x,y,clr);

        }

    }
```

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```
        else if(dy==0)

        {

                for(;x<=x2;x++)

                {

                        y=y1;

                        putpixel(x,y,clr);

                }

        }else

        {

                m=dy/dx;

        if(m<1)

        {

                for(;x<=x2;x++)

                {

                        y=m*x+ c;

                        putpixel(x,y,clr);

                }

        }

        else if(m==1)

        {

                for(;x<=x2;x++)

                {

                        y=y+1;

                        putpixel(x,y,clr);

                }

        }
```

```
        else
        {
            for(;y<=y2;y++)
            {
                x=(y-c)/m;
                putpixel(x,y,clr);
            }
        }
        }
    getch();
    closegraph();
}
```