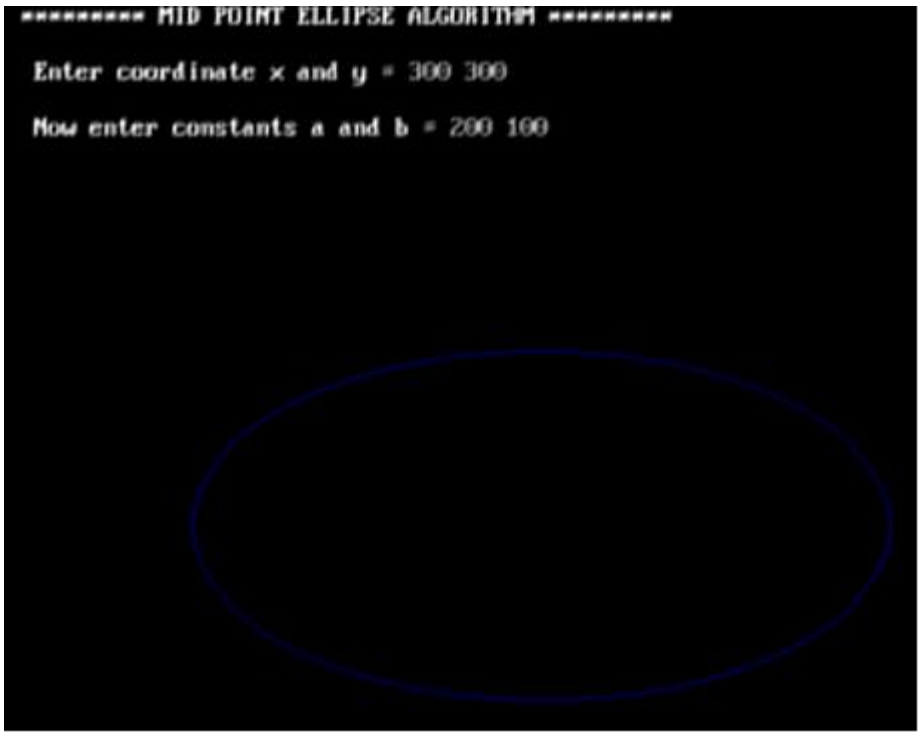
```
#includeconio.h

#includestdio.h

#includegraphics.h

void main()

{

  int gd=DETECT,gm;

  float x,y,xc,yc,rx,ry,pk,pk1;

  clrscr();

  initgraph(&gd,&gm,..bgi);

  printf(Mid point ellipse drawing algorithmn);

  printf(Enter Center for ellipsenx    );

  scanf(%f,&xc);

  printf(y    );

  scanf(%f,&yc);

  printf(Enter x-radius and y-radiusnx-radius    );

  scanf(%f,&rx);

  printf(y-radius    );

  scanf(%f,&ry);

  x=0;

  y=ry;


  pk=(ryry)-(rxrxry)+((rxrx)4);

  while((2xryry)(2yrxrx))

  {

    if(pk=0)
```

```
{
  x=x+1;
  pk1=pk+(2ryryx)+(ryry);
}
else
{
x=x+1;
y=y-1;
pk1=pk+(2ryryx)-(2rxrxy)+(ryry);
}
pk=pk1;
putpixel(xc+x,yc+y,2);
putpixel(xc-x,yc+y,2);
putpixel(xc+x,yc-y,2);
putpixel(xc-x,yc-y,2);

}

pk=((x+0.5)(x+0.5)ryry)+((y-1)(y-1)rxrx)-(rxrxryry);
while(y0)
{
if(pk0)
{
y=y-1;
pk1=pk-(2rxrxy)+(rxrx);
```

```
    }
    else
    {
    x=x+1;
    y=y-1;
    pk1=pk+(2ryryx)-(2rxrxy)+(rxrx);
    }
    pk=pk1;
    putpixel(xc+x,yc+y,2);
    putpixel(xc-x,yc+y,2);
    putpixel(xc+x,yc-y,2);
    putpixel(xc-x,yc-y,2);

    }
    line(xc+rx,yc,xc-rx,yc);
    line(xc,yc+ry,xc,yc-ry);
    outtextxy(xc+(1.2rx),yc-(1.2ry),(x,y));
    outtextxy(xc-(1.2rx),yc+(1.2ry),(-x,-y));
    outtextxy(xc+(1.2rx),yc+(1.2ry),(x,-y));
    outtextxy(xc-(1.2rx),yc-(1.2ry),(-x,y));
    getch();
}
```

OUTPUT:


********** MID POINT ELLIPSE ALGORITHM **********
Enter coordinate x and y = 300 300
Now enter constants a and b = 200 100