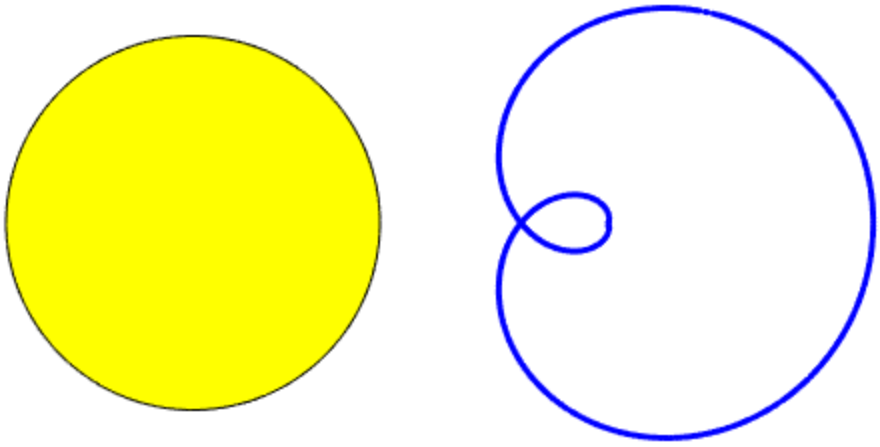
Main script

```
% Part 1
theta = 0:0.001:2*pi;
[x,y] = circle(2,theta);
subplot(1,2,1)
fill(x,y,'y')
axis equal off
% Part 2
r = 5;
m = 10000;
[x,y] = circle(r,theta);
p = rdcircle(x,y,m);
subplot(1,2,2)
plot(real(p),imag(p),'b.','MarkerSize',1)
axis equal off

% a function to generate the corners of a polygon
function [x,y] = circle(r,theta)


   x = r*cos(theta);
   y = r*sin(theta);
end

% another function below the main script
function p = rdcircle(x,y,m)
   n = length(x);
   z = exp(x+y*1i);
   p(1) = rand-1 + 1i*(rand-1);
   for j=1:m-1
       k = randi(n);
       p(j+1) = p(j)*0.5+0.5*(z(k)-p(j));
   end
end
```



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