```
function [integrin] = circle(R)
% user defined function to create a 2D circular domain

D = 100; % units in nm
R = D/2; % units in nm
ang = 0:1/1000:2*pi; % equal points between 0 and 2pi
x = R*cos(ang);
y = R*sin(ang);

plot(x,y)
title('2D Circular Domain'); % labels the plot
grid on;
```