

Either select five additional problems from Homework Assignment 2 with the option of substituting problems of your own making for problems on the list or do one of the following mini project.

Mini projects

1. For some large value of n of at least a thousand generate $G(n,p)$ for various values of p . Determine the thresholds for various phenomena such as the emergence of cycles, emergence of a giant component, disappearance of all components other than the giant component and isolated vertices, and the disappearance of isolated vertices.
2. Generate $G(1000,1/2)$ and find the largest clique you can.
3. Create your own mini project.