

Homework 7 - Due Wednesday November 15th

Prove all of your answers. If you work with others put their names clearly at the top of the assignment. Everyone must turn in their own independently written solutions

1. Problem 3.1.1 from your textbook parts (a) and (b).
2. Define a random graph on n vertices to be a graph formed as follows: Fix a vertex set $[n]$, for each pair of vertices x, y let (x, y) be an edge with probability p (flip a biased coin). (a) What is the expected number of edges in a random graph? (b) What is the expected number of triangles in a random graph?