Assignment 2 (deadline: April 20)

The total number of points possible to obtain in this assignment: 28

Exercise 1. *Show that $\omega(P_p) \leq \sqrt{p}$ for every prime p such that $p \bmod 4 = 1$.* [10 points]

Exercise 2. *Show that every tree has the Sidorenko property.* [6 points]

Exercise 3. *Show that every even cycle has the Sidorenko property.* [6 points]

Exercise 4. *Explicitly construct a limit graphing for the following sequence $(G_n)_{n\in\mathbb{N}}$ of graphs: G_n is the graph obtained from the $n\times n$ grid by subdividing each edge exactly once.* [6 points]