There are no lectures or tutorials on the course on Wed 24 Oct (lecturer at a meeting) and Wed 31 Oct (exam week).

1. Show that for any $\epsilon > 0$, a.e. graph $G \in \mathcal{G}(n, p)$ has at least $\frac{1}{2}(p - \epsilon)n^2$ edges and at most $\frac{1}{2}(p + \epsilon)n^2$ edges.

2. Derive Theorem 5.1 of the lecture notes (given any fixed graph $H$, a.e. $G \in \mathcal{G}(n, p)$ for $0 < p < 1$ contains an induced copy of $H$) from Lemma 5.2 of the notes (for any fixed $k, l \in \mathbb{N}$, a.e. $G \in \mathcal{G}(n, p)$ for $0 < p < 1$ has property $Q_{kl}$).

3. Show that a.e. graph $G \in \mathcal{G}(n, \frac{1}{2})$ has at least $n^{1/3}$ vertices of degree precisely $\left\lfloor \frac{n}{2} \right\rfloor$. 