SHEET 5

Exercise 1

Prove Fekete's lemma.

Exercise 2

Let $p < p_c$. Prove that there exists $c > 0$ s.t.

$$\forall x \in \mathbb{Z}^d \qquad \frac{c}{\|x\|_\infty^{4d(d-1)}} e^{-\frac{\|x\|_\infty}{\xi(p)}} \leq \mathbb{P}_p[0 \leftrightarrow x] \leq e^{-\frac{\|x\|_\infty}{\xi(p)}}$$