Statistics 330b/600b, spring 2010
Homework # 6
Due: Thursday 25 February

Please attempt at least the starred problems.

*[1] Let $X_1, X_2, \ldots$, be independent random variables with $\Pr X_i = 0$ and $\Pr X_i^6 \leq C$ for each $i$, where $C$ is a finite constant. Show that $\Pr(X_1 + \cdots + X_n)^6 \leq C_0 n^3$ for each $n$, where $C_0$ is a constant that depends only on $C$.

*[2] UGMTP Problem 4.21. [You proved a stronger version of UGMTP Problem 4.1 on Homework 3. There is no need resolve the Problem.]