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Let X be an infinite dimensional uniformly smooth Banach space. We prove that X contains an infinite equilateral set. That is, there exists a constant $\lambda > 0$ and an infinite sequence $(x_i)_{i=1}^{\infty} \subset X$ such that $\|x_i - x_j\| = \lambda$ for all $i \neq j$. (Received December 03, 2012)