1030-05-99 **J Robert Johnson** and **John Talbot*** (talbot@math.ucl.ac.uk), Department of Mathematics, UCL, Gower Street, London, WC1E 6BT, England. *Turán's problem for the hypercube.*

For $1 \leq d \leq n$ let $g(n,d)$ denote the minimum size of a subset of the vertices of the n-dimesnional hypercube meeting every d-dimensional subcube.

We give a new proof of an old result of Entringer and Johnson that that $\lim_{n\to\infty} g(n,2)/2^n = 1/3$. Our method extends to give new lower bounds for $\lim_{n\to\infty} g(n,3)/2^n$. (Received July 24, 2007)