



Bilkent University
Department of Mathematics

PROBLEM OF THE MONTH

Term: September 2014

The increasing infinite sequence of positive integers $\{x_i\}_{i=1}^{\infty}$ is said to be *n-sequence* if for each x_i the smallest positive integer j for which $1 + x_i j^3$ is a perfect cube is n . Show that for each positive integer n there exists a *n-sequence*.