

## Bilkent University Department of Mathematics

## PROBLEM OF THE MONTH

Term: December 2007

Let  $\{a_n\}$  be an increasing sequence of positive integer numbers. The term  $a_k$  of this sequence is said to be good if  $a_k = t_l a_l + t_m a_m$  for some indices l and m and some positive integer numbers  $t_l$  and  $t_m$ . Prove that all but finite number of terms of this sequence are good.