

Bilkent University
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## Problem Of The Month

Term: December 2011

A sequence $\left\{a_{n}\right\}$ is said to be good if $a_{1}=1$ and $\left|a_{k+1}\right|=\left|a_{k}+1\right|$. Let $c_{n}=\min \left|\sum_{i=1}^{n} a_{i}\right|$, where the minimum is taken over all good sequences. Prove that the sequence $\left\{c_{n}\right\}$ is unbounded from above.

