

**Problem.** *Proposed by Tamás Erdélyi, Texas A&M University, College Station, TX.* Let  $\mathcal{L}_k$  denote the set of all polynomials of degree  $k$  with each of their  $k + 1$  coefficients in  $\{-1, 1\}$ . Let  $M_k$  denote the largest possible multiplicity that a zero of a  $P \in \mathcal{L}_k$  can have at 1. Let  $(C_k)$  be an arbitrary sequence of positive integers tending to  $\infty$ . Show that

$$\lim_{n \rightarrow \infty} \frac{1}{n} |\{k \in \{1, 2, \dots, n\} : M_k \geq C_k\}| = 0.$$