1145-11-627 **Jared Duker Lichtman** and **Carl Pomerance***, carl.pomerance@dartmouth.edu. *The Erdős conjecture for primitive sets.*

A subset of the integers larger than 1 is *primitive* if no member divides another. Erdős proved in 1935 that the sum of $1/(a \log a)$ for a running over a primitive set A is universally bounded over all choices for A. In 1988 he asked if this universal bound is attained for the set of prime numbers. In this paper we make some progress on several fronts, and show a connection to certain prime number "races" such as the race between $\pi(x)$ and $\mathrm{li}(x)$. (Received September 11, 2018)