

1077-11-2093 **Lola Thompson*** (lauren.a.thompson@dartmouth.edu). *On the divisors of $x^n - 1$.*

In this talk, we will examine two central questions concerning the divisors of the polynomial $x^n - 1$: “For a given integer n , how large can the coefficients of divisors of $x^n - 1$ be?” and “How often does $x^n - 1$ have a divisor of every degree between 1 and n ?” We will discuss how sieve methods and other techniques from multiplicative number theory can be used in order to answer these questions. (Received September 21, 2011)