1047-11-391 **Jonathan Sondow*** (jsondow@alumni.princeton.edu), 209 West 97th St Apt 6F, New York, NY 10025. *Ramanujan Primes and Bertrand's Postulate.*

The nth Ramanujan prime is the smallest natural number R_n such that if $x \geq R_n$, then there are at least n primes in the interval $(x/2, x]$. Bertrand's postulate is $R_1 = 2$. Ramanujan proved that R_n exists and gave the first five values as 2, 11, 17, 29, 41. In this talk, we prove that $2n \log 2n < R_n < 4n \log 4n$ for all n, and that R_n is asymptotic to the $2n$th prime. We also estimate the length of the longest string of consecutive Ramanujan primes among the first n primes, explain why there exist more twin Ramanujan primes than expected, and make three conjectures. Our paper is to appear in the Monthly. (Received February 02, 2009)