

1046-11-1150 **Brian Lawrence*** (BrianL@caltech.edu). *Bounding the Coefficients of $\Phi_{pqr}(x)$.*

A conjecture of Gallot and Moree states that, for all primes p , q , and r , the coefficients of the pqr th cyclotomic polynomial are bounded by $\frac{2}{3}p$. We prove this conjecture for all $p > 10^6$, assuming $p < q < r$. Furthermore, for $p > 10^{21}$, we give a formula for the largest coefficient of any cyclotomic polynomial $\Phi_{pqr}(x)$, as q and r range over all primes greater than p . Our work leaves the conjecture of Gallot and Moree open for small p . (Received September 14, 2008)