1056-11-1900 **Mark Kozek*** (`mkozek@whittier.edu`), Mathematics Department, Whittier College, Whittier, CA 90608-0634. *An asymptotic formula for Goldbach's conjecture with monic polynomials.*

Let $f(x)$ be a monic polynomial in $\mathbb{Z}[x]$ of degree $d > 1$. Hayes (1965) proved a form of Goldbach's conjecture with monic polynomials: there exist irreducible monic polynomials $g(x)$ and $h(x)$ in $\mathbb{Z}[x]$ with the property that $f(x) = g(x) + h(x)$. We give a proof that the number $\mathfrak{R}(y)$ of representations of $f(x)$ as a sum of two irreducible monic polynomials $g(x)$ and $h(x)$ in $\mathbb{Z}[x]$, with the coefficients of $g(x)$ and $h(x)$ bounded in absolute value by y, is asymptotic to $(2y)^{d-1}$. (Received September 22, 2009)