1086-11-568 **Patrick X Rault*** (rault@geneseo.edu), 326C South Hall, Department of Mathematics, SUNY Geneseo, Geneseo, NY 14454. *On uniform bounds for lattice points in plane regions and for rational points on rational curves of arbitrary degree.*

We use rational parametrizations to make progress on an open question about counting rational points on plane curves. Heath-Brown proved that for any $\epsilon > 0$ the number of rational points of height at most B on a degree d plane curve is $O_{\epsilon,d}(B^{2/d+\epsilon})$ (the implied constant depends on ϵ and d). It is known that Heath-Brown's theorem is sharp apart from the ϵ, but in certain cases the bound has been improved to $\epsilon = 0$. The open question is whether or not the bound with $\epsilon = 0$ holds in general. We resolve this question for degree d curves with nice resultant and discriminant. (Received September 07, 2012)