1017-11-23Joseph H Silverman*, Mathematics Department - Box 1917, Brown University, Providence, RI
02912, and Michael Rosen, Mathematics Department - Box 1917, Brown University, Providence,
RI 02912. Independence of Heeger Points.

Let E/\mathbb{Q} be an elliptic curve with a fixed modular parametrization $\Phi: X_0(N) \to E$. There is a constant $C = C(E, \Phi)$ so that the following holds: Let k_1, \ldots, k_n be distinct quadartic imaginary fields and let $P_1, \ldots, P_n \in E(\overline{\mathbb{Q}})$ be Heegner points attached to the maximal orders of k_1, \ldots, k_n . If the odd parts of the class numbers of k_1, \ldots, k_n are larger than C, then the points P_1, \ldots, P_n are independent in $E(\overline{\mathbb{Q}})$ modulo torsion. (Received January 12, 2006)