1084-13-342 **Jason Greene Boynton*** (jason.boynton@ndsu.edu), NDSU Mathematics Dept #2750, Attn: Melanie, PO Box 6050, Fargo, ND 58108-6050, and **Jim Coykendall** (jim.coykendall@ndsu.edu), NDSU Mathematics Dept #2750, Attn: Melanie, PO Box 6050, Fargo, ND 58108-6050. *On Kaplansky's theorem for unique factorization domains.*

A well-known theorem of Kaplansky states that an integral domain is a unique factorization domain if and only if every nonzero prime ideal contains a prime element. Recall that a domain is called atomic if every nonzero nonunit admits a finite factorization into irreducible elements (atoms). Let D be an atomic integral domain and let $\mathrm{Irr}(D)$ be its set of irreducible elements. Given a factorization property F, we find a subset $X(F)$ of $\mathrm{Irr}(D)$ such that D has property F if and only if every nonzero prime ideal contains an element of $X(F)$. (Received September 04, 2012)