

Meeting: 1004, Bowling Green, Kentucky, SS 11A, Special Session on Commutative Ring Theory

1004-13-106 **Jeanam Park*** (jnpark@inha.ac.kr), Department of Mathematics, Inha University, 402-751
Incheon, South Korea. *Generating sets for ideals of a pullback.* Preliminary report.

Let T be an integral domain, M a nonzero maximal ideal of T , $k = T/M$, $k^* = k \setminus \{0\}$, $\varphi : T \rightarrow k$ the natural ring epimorphism, D a proper subring of k , and $R = \varphi^{-1}(D)$. In this paper, we show that if k is the quotient field of D and the map $\tilde{\varphi} : U(T) \rightarrow k^*/U(D)$, given by $\tilde{\varphi}(u) = \varphi(u)U(D)$, is surjective, then $\#(I) = \max\{\#(\varphi(I)), \#(IT)\}$ for each ideal I of R with $I \not\subseteq M$, where $\#(J)$ is the minimal number of generators of an ideal J .

(Received January 19, 2005)