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R. Douglas Chatham* (d.chatham@moreheadstate.edu), Dept. of Mathematics and Computer Science, Morehead State University, Morehead, KY 40351, and **David E. Dobbs.** *N-dimensional Pairs.* Preliminary report.

Let $R \subseteq T$ be an extension of (commutative) rings and n be either ∞ or a nonnegative integer. We say that (R, T) is an n -dimensional pair if every ring A such that $R \subseteq A \subseteq T$ has (Krull) dimension n . For an easy example, if T is an integral extension of R , then (R, T) is an n -dimensional pair. We present examples of n -dimensional pairs which are not integral extensions, and we state conditions that force an n -dimensional pair to be an integral extension. (Received August 02, 2005)