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Shane P Redmond* (Shane.Redmond@eku.edu), 313 Wallace Bldg, 521 Lancaster Ave., Eastern Kentucky University, Richmond, KY 40475. *Zero Product Sequences in Commutative Rings*. Preliminary report.

Let R be a commutative ring. A *zero product sequence* (or *zps*) is a sequence $\{a_1, a_2, \dots, a_n\} \subseteq R$ such that $a_1 \cdot a_2 \cdots a_n = 0$ with each $a_i \neq 0$. A *minimal zps* is a *zps* such that no subsequence is also a *zps*. Define the *zps constant* for R , denoted $D_z(R)$, to be the supremum of the lengths of every minimal *zps* of R . Several examples and consequences of this definition are given, as well as applications to the study of zero-divisor graphs. (Received September 16, 2008)