1046-13-478 **David F Anderson** and **Ayman R Badawi*** (abadawi@aus.edu), American University of Sharjah, Dept. of Math, P.O. Box 26666, Sharjah, 00000, United Arab Emirates. *On n-absorbing ideals of commutative rings.* Preliminary report.

Let R be a commutative ring with $1 \neq 0$ and n a positive integer. In this paper, we study two generalizations of a prime ideal. A proper ideal I of R is called an n-absorbing (resp., strongly n-absorbing) ideal if whenever $x_1 \cdots x_{n+1} \in I$ for $x_1, \ldots, x_{n+1} \in R$ (resp, $I_1 \cdots I_{n+1} \subseteq I$ for ideals $I_1, \ldots, I_{n+1}$ of R), then there are n of the x_i's (resp., n of the I_i's) whose product is in I. We investigate n-absorbing and strongly n-absorbing ideals, and we conjecture that these two concepts are equivalent. In particular, we study the stability of n-absorbing ideals with respect to various ring-theoretic constructions and study n-absorbing ideals in several classes of commutative rings. For example, in a Noetherian ring every proper ideal is an n-absorbing ideal for some positive integer n, and in a Prüfer domain, an ideal is an n-absorbing ideal for some positive integer n if and only if it is a product of prime ideals. (Received September 04, 2008)