

1147-13-304

Ayman R Badawi* (abadawi@aus.edu), American University of Sharjah, Department of Mathematics, P.O. Box 26666, Sharjah, United Arab Emirates, and **David F Anderson**. *On n -pseudo valuation domains*. Preliminary report.

Let R be an integral domain with quotient field K and $n \geq 1$ be a positive integer. A prime ideal P of R is called an n -strongly prime ideal of R if whenever $x^n y^n \in P$ for some $x, y \in K$, then $x^n \in P$ or $y^n \in P$. If every prime ideal of R is an n -strongly prime ideal, then R is called an n -pseudo valuation domain. A number of results and examples on n -pseudo valuation domains will be presented. (Received January 17, 2019)