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Melvin Henriksen* (henriksen@hmc.edu), Harvey Mudd College, 1250 N. Dartmouth Ave, Claremont, CA 91711. *Tychonoff spaces X such that each maximal ideal of $C(X)$ contains a minimal prime ideal P for which $C(X)/P$ is a valuation domain.* Preliminary report.

A ring $C(X)$ [space X] satisfying the conditions of the title is called an almost SV-ring [almost SV-space]. If for each pair of nonzero elements of $C(X)/P$, one must divide the other, then it is called a valuation domain and P a survaluation ideal. $C(X)$ is an SV-ring if each of its prime ideals is a survaluation ideal. Finite unions of compact F -spaces are SV-spaces and no infinite SV-space contains the one-point compactification αN of a countably infinite discrete space. [X is an F -space if each maximal ideal of $C(X)$ contain a unique maximal ideal.] Every SV-ring is an almost SV-ring, but the space obtained by attaching a copy of αN to βN (or any infinite compact F -space) at a non P -point is an almost SV-space. Proving topological theorems about such spaces is complicated by the fact that whether αN is or is not an almost SV-ring is undecidable in ZFC and depends on whether $\beta N / N$ has P -points. CH implies the latter, but there are models of ZFC in which it fails. Sample theorem: If αN is an almost SV-space, then so is αD and $(\alpha D)(\alpha D)$ for any infinite discrete space D . Sample problem: Is $[0,1]$ an almost SV-space under this assumption? (This is part of joint research with Bikram Banerjee of the University of Calcutta.) (Received September 17, 2005)