962-13-1200 **Daniel D. Anderson** (dan-anderson@uiowa.edu), Iowa City, IA 52242, and **Sylvia J Forman*** (syforman@sju.edu), , Philadelphia, PA 19131. *Two star-operations and their induced lattices.* Preliminary report.

Let D be an integral domain with quotient field K, let $F(D)$ ($f(D)$) be the set of nonzero (finitely generated) fractional ideals of D, and let $\star$ be a star-operation on $F(D)$. For $A \in F(D)$ we will define $A^{\bar{\star}} = \{x \in K \mid$ there exists a $J \in F(D)$ such that $J^\star = D$ and $xJ \subseteq A\}$ and $A^{\star_w} = \{x \in K \mid$ there exists a $J \in f(D)$ such that $J^\star = D$ and $xJ \subseteq A\}$. Then $\bar{\star}$ and $\star_w$ are star-operations on $F(D)$ that satisfy $(A \cap B)^{\bar{\star}} = A^{\bar{\star}} \cap B^{\bar{\star}}$ and $(A \cap B)^{\star_w} = A^{\star_w} \cap B^{\star_w}$. Let $\mathcal{L}_\star(D) = \{A \mid A$ is an integral $\star$-ideal$\} \cup \{0\}$. Then $\mathcal{L}_\star(D)$ is a complete multiplicative lattice which is modular if $\star$ distributes over intersections. If we call a star-operation modular when its induced lattice is modular, then for a finite character star-operation $\star$ on $F(D)$, it is of interest to know the exact relationship between the following three conditions: (1) $\star$ is additive, (2) $\star$ distributes over intersections, and (3) $\mathcal{L}_\star(D)$ is modular. (Received October 03, 2000)