HW5Ex2Ans1

Question 2

Meet semilattice
Algebra $A$ in the signature $\{\land\}$ is a meet semi-lattice on the carrier $A$ if properties (L1) to (L3) hold of the operation $\land$.

Join semilattice
Algebra $A$ in the signature $\{\lor\}$ is a meet semi-lattice on the carrier $A$ if properties (L1) to (L3) hold of the operation $\lor$.

In both of these algebras only one of the operations of full lattices can be used – since only one of the two features is required in each of the algebras. Also, since (L4) crucially refers to both $\land$ and $\lor$, it cannot be expected of any of the algebras to obey (L4).