

**Lemma.**  $\text{Hom}_{\mathbf{D}\mathbf{P}}(\mathbf{P}; \mathbf{Q})$  is a bounded lattice with union  $\vee$  as join, intersection  $\wedge$  as meet, least upper bound  $\top_{\mathbf{P}, \mathbf{Q}}$  and greatest lower bound  $\perp_{\mathbf{P}, \mathbf{Q}}$ .