homomorphism is a map  $f: \mathbf{P} \to \mathbf{Q}$  which preserves meets, joins, top, and bottom:

**Definition** (Lattice homomorphism). Given two bounded lattices **P**, **Q**, a *lattice* 

ottom:  

$$f(p \wedge_{\mathbf{P}} q) = f(p) \wedge_{\mathbf{Q}} f(q)$$

$$f(p \vee_{\mathbf{P}} q) = f(p) \vee_{\mathbf{Q}} f(q)$$

$$f(\perp_{\mathbf{P}}) = \perp_{\mathbf{Q}}$$

 $f(\mathsf{T}_{\mathbf{P}}) = \mathsf{T}_{\mathbf{O}}$