

Definition (Category **Lat**)

The category **Lat** is defined by:

1. *Objects*: The objects of this category are all lattices.
2. *Morphisms*: The morphisms from a lattice X to a lattice Y are the lattice homomorphisms maps from X to Y .
3. *Identity morphism*: The identity morphism for the lattice X is the identity map Id_X .
4. *Composition operation*: The composition operation is composition of maps.