

Definition (Lattice). A *lattice* is a poset $\langle \mathbf{P}, \leq_{\mathbf{P}} \rangle$ with some additional properties:

1. Given two points $x, y \in \mathbf{P}$, it is always possible to define their least upper bound, called *join*, and indicated as $x \vee y$.
2. Given two points $x, y \in \mathbf{P}$, it is always possible to define their greatest lower bound, called *meet*, and indicated as $x \wedge y$.