

**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  $x \wedge y$ .