Definition (Symmetric monoidal poset). A *symmetric monoidal poset* is a monoidal poset $\mathbf{P} = \langle \mathbf{P}, \leq_{\mathbf{P}}, \otimes, \mathbf{1} \rangle$ such that, for all $x, y \in \mathbf{P}$,

$$x \otimes y = y \otimes x.$$