

Definition. The *opposite* of a poset $\mathbf{P} = \langle \mathbf{P}, \leq_{\mathbf{P}} \rangle$ is the poset denoted $\mathbf{P}^{\text{op}} = \langle \mathbf{P}, \leq_{\mathbf{P}^{\text{op}}} \rangle$. It has the same elements as \mathbf{P} , but is equipped with the reverse ordering (??). For a given $p \in \mathbf{P}$, we will sometimes write p^* to denote its corresponding copy in \mathbf{P}^{op} , in order to emphasize that p and p^* belong to distinct posets. However, often we will not be so pedantic with our notation. Reversing the order means that, for all $p, q \in \mathbf{P}$,

$$\frac{p \leq_{\mathbf{P}} q}{q^* \leq_{\mathbf{P}^{\text{op}}} p^*}$$