**Definition**

The *opposite* of a poset $\mathbf{P} = \langle \mathbf{P}, \leq_{\mathbf{P}} \rangle$ is the poset denoted $\mathbf{P}^{\mathrm{op}} = \langle \mathbf{P}, \leq_{\mathbf{P}}{}^{\mathrm{op}} \rangle$. 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 $p^*$ do denote its corresponding copy in $\mathbf{P}^{\mathrm{op}}$, 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 $p, q \in \mathbf{P}$,

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