

Definition (Upper set)

An *upper set* \mathbf{U} is a subset of a poset \mathbf{P} such that, if $x \in \mathbf{U}$, then all elements of \mathbf{P} that are above x are also in \mathbf{U} . In other words:

$$\frac{x \in \mathbf{U} \quad x \leq_{\mathbf{P}} y}{y \in \mathbf{U}} .$$