

# Definition (Order on DP)

Suppose that  $\mathbf{P}$  and  $\mathbf{Q}$  are posets, and that  $\mathbf{d}, \mathbf{e} : \mathbf{P} \rightarrow \mathbf{Q}$  are design problems. We define the order as follows:

$$\frac{\mathbf{d} \leq_{\mathbf{DP}} \mathbf{e}}{\mathbf{d}(p^*, q) \leq_{\mathbf{Bool}} \mathbf{e}(p^*, q)},$$

for all  $p \in \mathbf{P}, q \in \mathbf{Q}$ .