

Definition. [Partial order \leq_V on valuations] For two valuations $\boldsymbol{v}_1, \boldsymbol{v}_2 : \mathcal{A} \rightarrow \mathbf{UDP}$, say that $\boldsymbol{v}_1 \leq_V \boldsymbol{v}_2$ if $\boldsymbol{v}_1(a) \leq_{\mathbf{UDP}} \boldsymbol{v}_2(a)$ for all $a \in \mathcal{A}$.