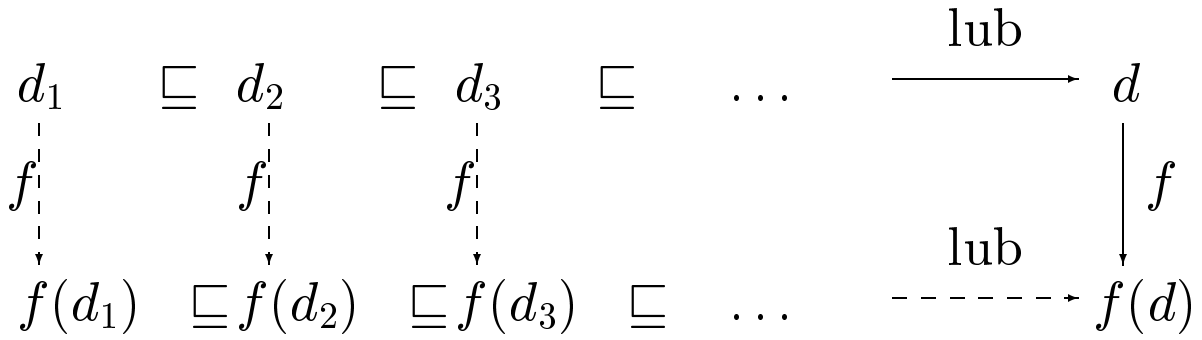
A reflexive partial ordering $\sqsubseteq$ on a set D is *complete* iff

(1) D has a smallest element $\bot_D$

(2) every chain S of D has a least upper bound $\sqcup S \in D$



$f : D_1 \to D_2$ is *continuous* if $f(\sqcup S) = \sqcup f(S)$ for every chain S of D_1.

f is *continuous* $\Rightarrow$ f is *monotonic*

$\sqsubseteq$ is a cpo on:

- Base Domains $\mathbb{Z}_\bot$, $\mathbb{B}_\bot$, $C_\bot$, $F_\bot$
- Product Domains $D_1 \times \ldots \times D_n$
- Function Domains $\langle D_1 \to D_2 \rangle$ (*continuous* functions)