ordered set if the relation $\leq_{\mathbf{P}}$ is total. In other words, if:

$$\frac{\mathsf{T}}{(p \leq_{\mathbf{P}} q) \vee (q \leq_{\mathbf{P}} p)}$$

Definition (Totally ordered set). A partially ordered set $P = \langle P, \leq_P \rangle$ is a totally