

* Hasse Diagram

Hasse Diagram: Representation of POSET.

↓
Partial Order Set.

Imp Points

- (i) Create vertex for element. [only upwards direction]
- (ii) If aRb then draw edge from a to b .
- (iii) Remove self loop and transitive edges.

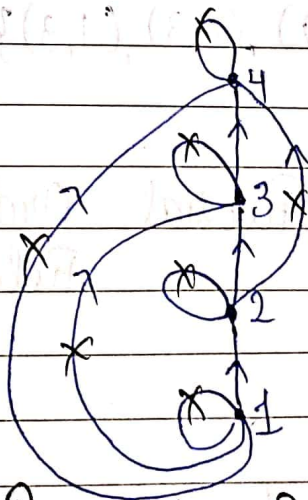
Definition

A Hasse diagram is a graphical representation of the relation of elements of a (poset) partially ordered set with an implied upward direction.

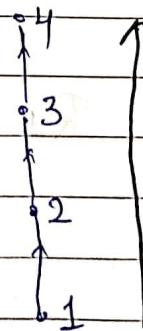
Example

Construct the Hasse Diagram

for $(\{1, 2, 3, 4\}, \leq)$ less than equal to



Raw Hasse Diagram



final Hasse Diagram

↑
upwards