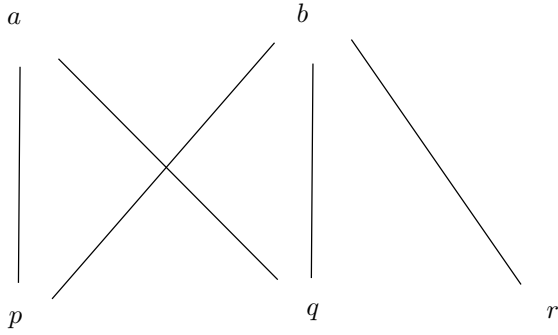


**Example 1.** There is a separable poset (that is a set with  $\star$  being an injection) such that  $\star x \subseteq \star y$  does not imply  $x \sqsubseteq y$  (where  $\sqsubseteq$  denotes our order) for elements  $x, y$  of this poset.

**Proof.** (with help of sci.math partakers) Consider 5-elements poset defined by the following Hasse diagram:



$$\star p = \{p, a, b\}, \star q = \{q, a, b\}, \star r = \{r, b\}, \star a = \{p, q, a, b\}, \star b = \{p, q, a, b, r\}.$$

Thus  $\star x = \star y \Rightarrow x = y$  for any  $x, y$  in our poset.

$\star a \subseteq \star b$  but not  $a \sqsubseteq b$ .

□