Exerc: $(L, \leq) \Rightarrow$ lanț , $L \neq \emptyset$; $(M, \subseteq) \Rightarrow$ poset, $M \neq \emptyset$;

$f: L \to M$, $f \nearrow$, inj.

Ad $\Rightarrow f \Rightarrow$ hom. de poseturi $(\text{i.e. } f^{-1} \nearrow)$ $\left(\xrightarrow[\text{anterior}]{\text{Exerc}} (M, \subseteq) \neq \text{lanț} \right)$

Poz i

Pp abs $(\exists \, x, y \in M)$ $x \subseteq y$ & $f^{-1}(x) \nleq f^{-1}(y)$

$\left.\begin{array}{l} f^{-1}(x) \nleq f^{-1}(y) \\ (L, \leq) \Rightarrow \text{lanț} \end{array}\right\} \Rightarrow \left\{\begin{array}{l} f^{-1}(y) \leq f^{-1}(x) \xRightarrow{f \nearrow} f(f^{-1}(y)) \subseteq f(f^{-1}(x)) \\ \hookrightarrow y \subseteq x \\ f^{-1}(x) \neq f^{-1}(y) \xRightarrow{f \text{ inj}} f(f^{-1}(x)) \neq f(f^{-1}(y)) \end{array}\right.$

$\Rightarrow \left| \begin{array}{l} y \subseteq x \Rightarrow x = y \\ x \neq y \end{array}\right. \Rightarrow y \Rightarrow \nRightarrow \Rightarrow f^{-1} \nearrow$

$\boxed{x \subseteq y}$