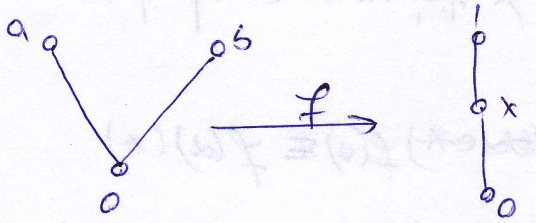
Def: Fie $(A,\leq)$, $(B,\sqsubseteq)$ - poseturi, $f: A \to B$. f s.n. *funcție izotonă* (*fct. crescătoare*) sau *morfism de poseturi* dacă: $(\forall x, y \in A)[x \leq y \Rightarrow f(x) \sqsubseteq f(y)]$



x	0	a	b
$f(x)$	0	x	1

$f \to$ bij
$f \to$ izotonă
dar f^{-1} nu e izotonă

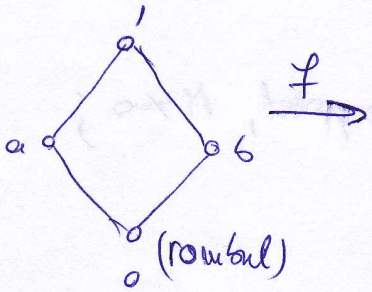
$x \leq 1$

$f^{-1}(x) = a \not\leq b = f^{-1}(1)$

f^{-1} nu este izotonă

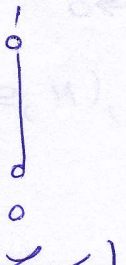
Def: • f s.n. *izomorfism de poseturi* (*izomorfism de ordine*) dacă $f \to$ izotonă (morfism), bijectivă și cu $f^{-1} \to$ izotonă

* Să se determine toate fct izotone între urm. poseturi:



$(A,\leq)$

$(\mathcal{Z}_2^2, \leq)$ (vom vedea)



$(\mathcal{Z}_2, \leq)$

În $(A,\leq)$: $0 \leq a \leq 1$
$\leq b \leq$

Fie $f: A \to \mathcal{Z}_2$, $f^{\nearrow} \to$

$\Rightarrow f(0) \leq f(a) \leq f(1) \Rightarrow$
$\leq f(b) \leq$

$\Rightarrow (f(0), f(a), f(1)), (f(0), f(b), f(1)) \in \{(0,0,0), (0,0,1), (0,1,1), (1,1,1)\}$

$\Rightarrow (f(0), f(a), f(b), f(1)) \in \{(0,0,0,0), (0,0,0,1), (0,0,1,1), (0,1,0,1), (0,1,1,1), (1,1,1,1)\} \to$ € fct izotone

(vect valorilor lui f)