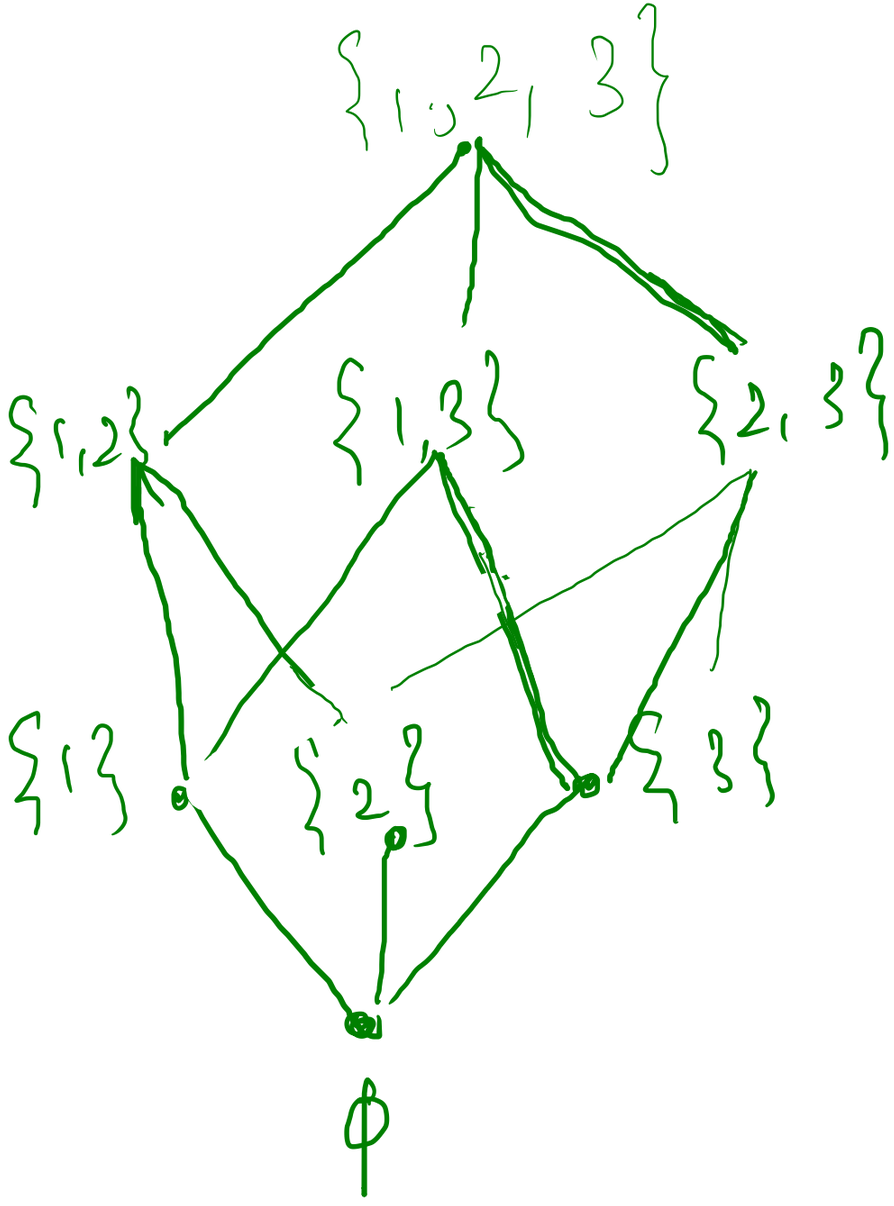
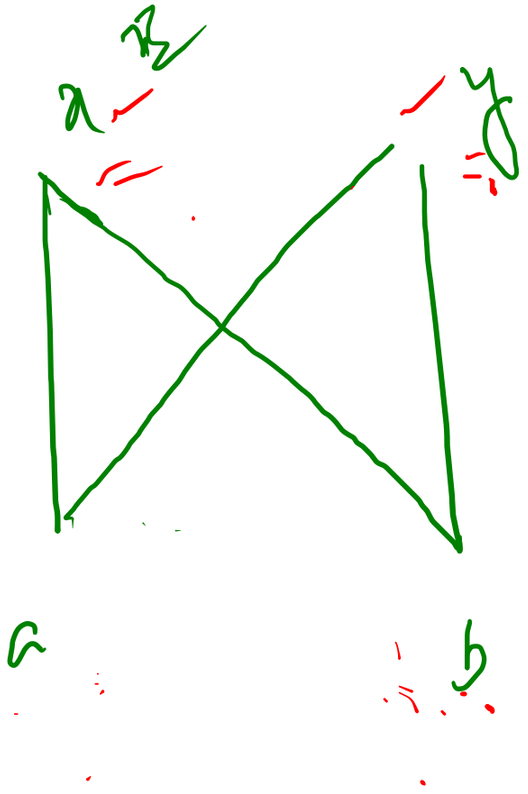
$A = \{1, 2, 3\}$, $(P(A), \subseteq)$

Hasse Diagram:





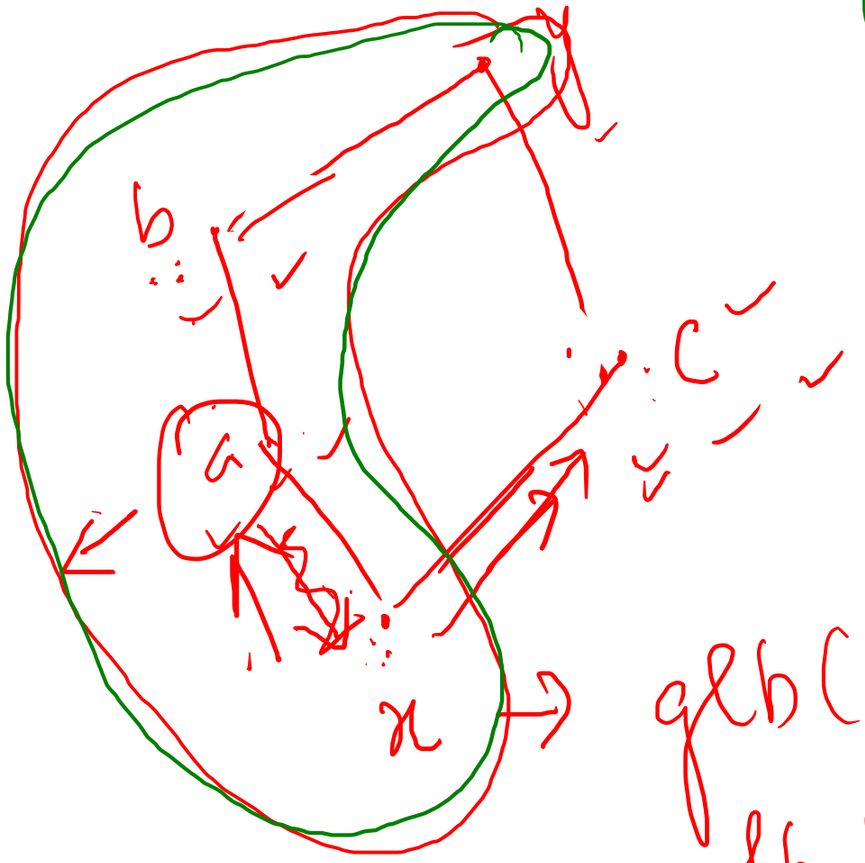
→ Is this a lattice?

NO: why (?)

a and b has

$x \not\leq y$ as upper bound

but not least upper bound



$a \wedge b = b \wedge a$ $\quad a \vee b = b \vee a$

Is this before?

$b \vee c = y$

$a \wedge c = x$

$b \wedge a = (\ ?\ )$

$\downarrow$

x

$glb(b, c)$

$glb(a, c)$

$a \vee b = y$

~~$a \wedge b$~~ $=$

$a \wedge b = x$ $\quad x \leq b, \quad x \leq a$

find $a \vee b$?

$lub(a, b) = a \vee b$ (read as a or b

otherwise

a join b.

$glb(a, b) = a \wedge b$

↓

read as

a and b

a meet b

& a intersection b

otherwise

a union b