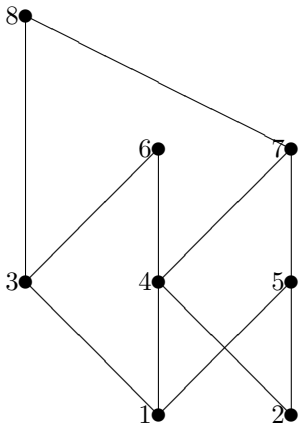


Name

row	col....
1.	2.	Σ

1. Find sup and inf for every par of elements



inf \ sup	1	2	3	4	5	6	7	8
1	1							
2		2						
3			3					
4				4				
5					5			
6						6		
7							7	
8								8

2. For $x, y, z, t \in \mathbb{N}$ $(x, y) \preceq (z, t)$ iff $x \leq z \wedge x \cdot y \leq z \cdot t$. Prove that \preceq is a partial order. Draw the Hasse diagram for $(\{(x, y) : x, y \in \{1, 2, 3\}\}, \preceq)$. Find the smallest, largest, all minimal, all maximal elements. Give an example of a maximal chain and antichain in $(\{(x, y) : x, y \in \{1, 2, 3\}\}, \preceq)$.