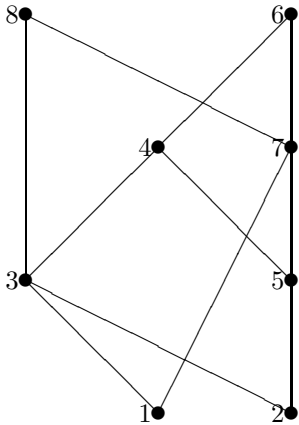


Name .....

group CA... row .... col....

1.	2.	$\Sigma$

1. Find inf for every par of elements



inf	1	2	3	4	5	6	7	8
1	1	x	x	x	x	x	x	x
2		2	x	x	x	x	x	x
3			3	x	x	x	x	x
4				4	x	x	x	x
5					5	x	x	x
6						6	x	x
7							7	x
8								8

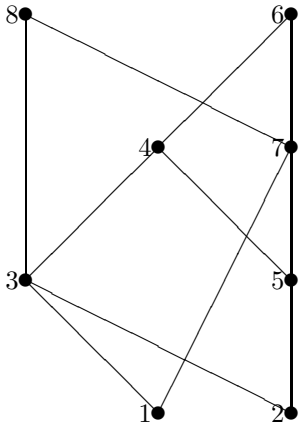
2. For  $(x, y), (s, t) \in \mathbb{N}_+^2$   $(x, y) \preceq (s, t)$  iff  $x + y < s + t \wedge x - y \leq s - t$ . Prove that  $\preceq$  is a partial order. Draw the Hasse diagram for  $(\{(x, y) : x, y \in \{1, 2, 3, 4\}\}, \preceq)$ . Find the smallest, largest, all minimal, all maximal elements.

Name .....

group CA... row .... col....

1.	2.	$\Sigma$

1. Find sup for every par of elements



sup	1	2	3	4	5	6	7	8
1	1							
2	x	2						
3	x	x	3					
4	x	x	x	4				
5	x	x	x	x	5			
6	x	x	x	x	x	6		
7	x	x	x	x	x	x	7	
8	x	x	x	x	x	x	x	8

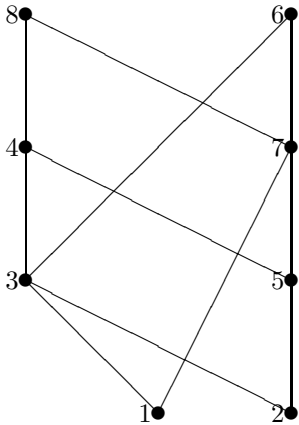
2. For  $(x, y), (s, t) \in \mathbb{N}_+^2$   $(x, y) \preceq (s, t)$  iff  $x + y < s + t \wedge x - y \leq s - t$ . Prove that  $\preceq$  is a partial order. Draw the Hasse diagram for  $(\{(x, y) : x, y \in \{1, 2, 3, 4\}\}, \preceq)$ . Find the smallest, largest, all minimal, all maximal elements.

Name .....

group CA... row .... col....

1.	2.	$\Sigma$

1. Find inf for every par of elements



inf	1	2	3	4	5	6	7	8
1	1	x	x	x	x	x	x	x
2		2	x	x	x	x	x	x
3			3	x	x	x	x	x
4				4	x	x	x	x
5					5	x	x	x
6						6	x	x
7							7	x
8								8

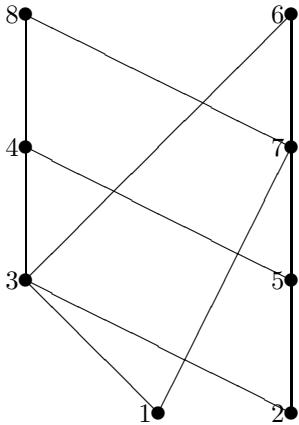
2. For  $(x, y), (s, t) \in \mathbb{N}_+^2$   $(x, y) \preceq (s, t)$  iff  $x|s \wedge x + y|s + t$ . Prove that  $\preceq$  is a partial order. Draw the Hasse diagram for  $(\{(x, y) : x, y \in \{1, 2, 3, 6\}\}, \preceq)$ . Find the smallest, largest, all minimal, all maximal elements.

Name .....

group CA... row .... col....

1.	2.	$\Sigma$

1. Find sup for every par of elements



sup	1	2	3	4	5	6	7	8
1	1							
2	x	2						
3	x	x	3					
4	x	x	x	4				
5	x	x	x	x	5			
6	x	x	x	x	x	6		
7	x	x	x	x	x	x	7	
8	x	x	x	x	x	x	x	8

2. For  $(x, y), (s, t) \in \mathbb{N}_+^2$   $(x, y) \preceq (s, t)$  iff  $x|s \wedge x - y|s - t$ . Prove that  $\preceq$  is a partial order. Draw the Hasse diagram for  $(\{(x, y) : x, y \in \{1, 2, 3, 6\}\}, \preceq)$ . Find the smallest, largest, all minimal, all maximal elements.