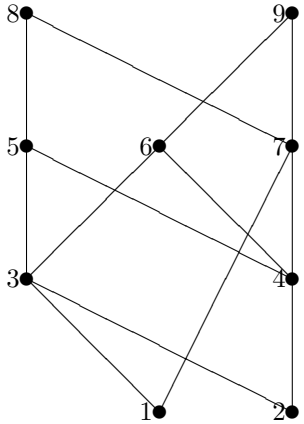
Name ..... group FA... row .... col....

1.	2.	3.	$\sum$

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

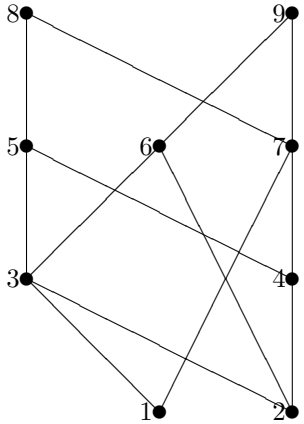
2. For $(x, y), (z, t) \in \mathbb{R}^2$ $(x, y) \sim (z, t) \Leftrightarrow \exists k \in \mathbb{Z}\ x + k = z$. Prove $\sim$ is equivalence relation in $\mathbb{R}^2$. Find and draw equivalence classes $[(\frac{1}{2}, 1)]_\sim$.

3. For $(n, m), (p, q) \in \mathbb{N}_+^2$, $(n, m) \preceq (p, q) \Leftrightarrow (n, m) = (p, q) \vee (n < p \wedge n - m \leq p - q)$. Prove that $\preceq$ is a partial order. Draw the Hasse diagram for $(\{1, 2, 3\}^2, \preceq)$.

Name ..... group FA... row .... col....

1.	2.	3.	$\sum$

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 $(x, y), (z, t) \in \mathbb{R}^2$ $(x, y) \sim (z, t) \Leftrightarrow \exists k \in \mathbb{Z}\ x + k = z \wedge y = t$. Prove $\sim$ is equivalence relation in $\mathbb{R}^2$. Find and draw equivalence classes $[(\frac{1}{2}, 1)]_\sim$.

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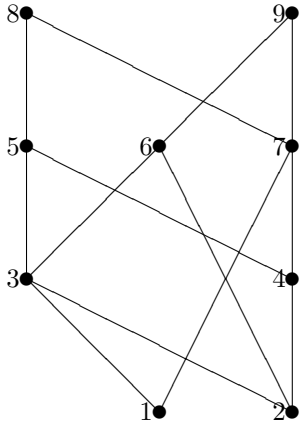
Name ..... group FA... row .... col....

1.	2.	3.	$\sum$

1. Find sup 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

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