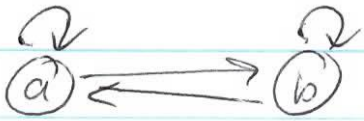
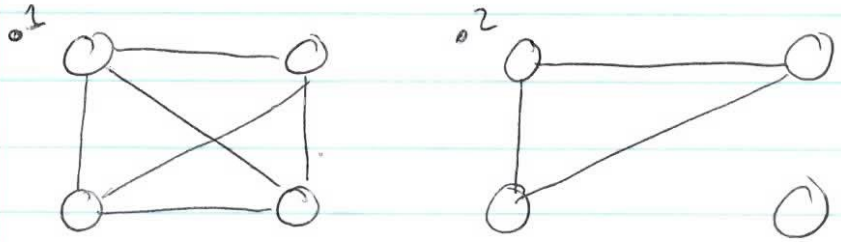
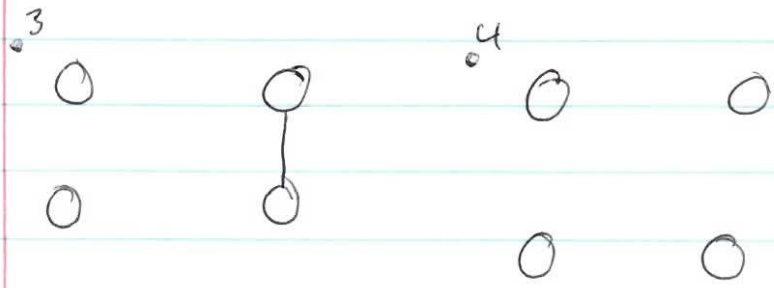
Kha Le

1. 

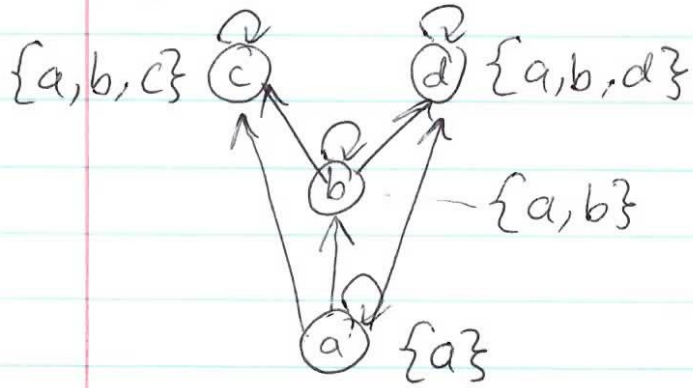
(a) $[a] = [b] = \{a, b\}$

(b) $\{a, c\}, \{b, d\}$
$\{a, d\}, \{b, c\}$
- reflexive, symmetric, transitive
- $[x] = \{y : (x, y) \in R\}$
- two equivalence classes $[x]$ and $[y]$ are either disjoint or equal

2. 



3. - partial orders are anti-symmetric while equivalence relations are symmetric



	a	b	c	d
a	1	1	1	1
b	0	1	1	1
c	0	0	1	0
d	0	0	0	1

maximal: c, d
minimal: a

(a) when there is a while loop in the code

(b) anti-reflexive, anti-symmetric, transitive

(c) no

(d) yes