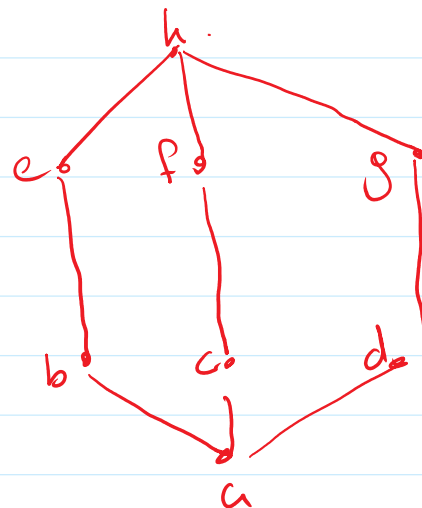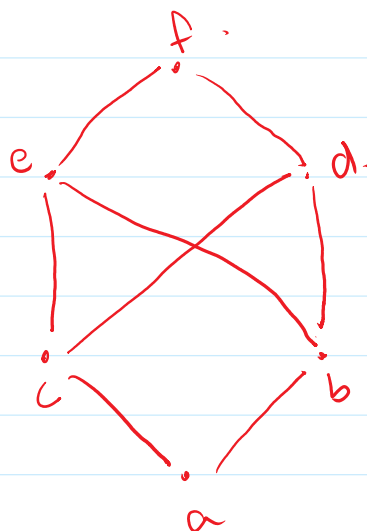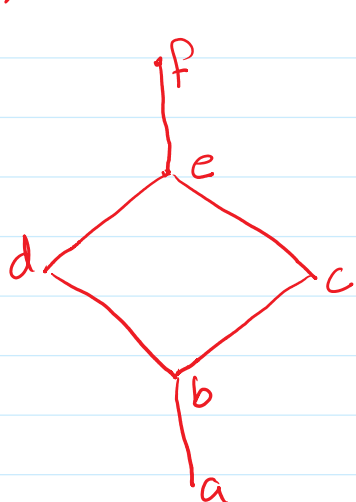lecture 21:-   Lattices.

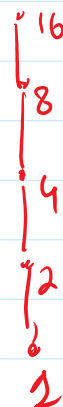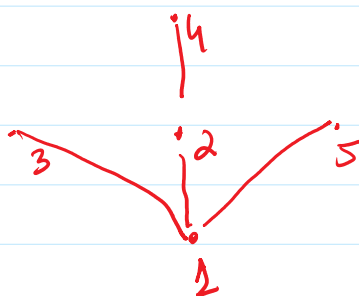A POSET where every pair of elements has a
1) least upper bound &
2) Greatest lower bound.

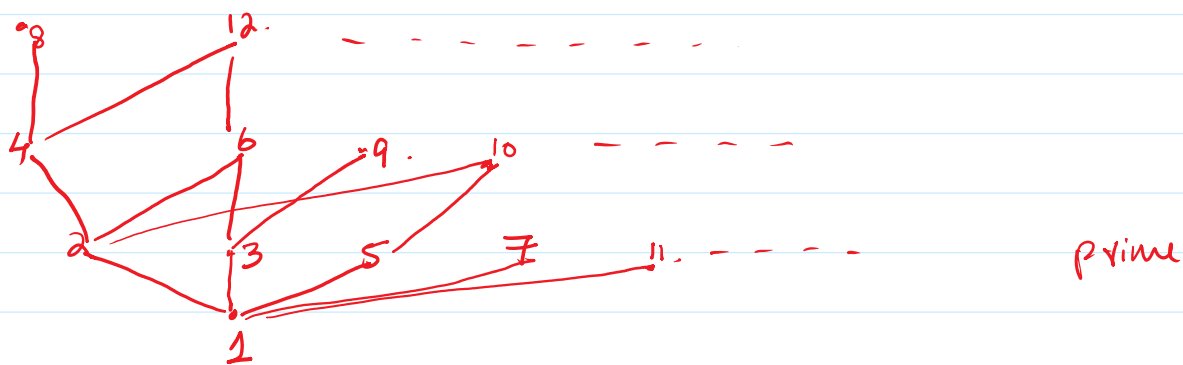Ex23 $(\{1,2,3,4,5\}, |)$. $(\{1,2,4,8,16\}, |)$.

Ex 511 $\{3, 9, 12\}$. $(Z^+, |)$.

12.

Diagram of divisibility: elements 8, 12, 4, 6, 9, 10, 2, 3, 5, 7, 11, 1 with 11 labeled **prime**

if we have 3 elements.
How many HASSE Diagrams.

(a)   (b)   (c)   (d)   (e)

(a)   (b)   (C)   (d)   (c)   (f)   (g)   (h)

(i).   (j)   (k)   (l)