

Thursday, November 10

Name _____

Email _____

6.035 Fall 2016

Miniquiz #25

5 Minutes

Let set $P = \{000, 001, 010, 011, 100, 101, 110, 111\}$ and a partial order $x \leq y$ is defined as:

$x \leq y$ if $(x \& y) = x$ where $\&$ is a bitwise and

The figure on the right shows the Hasse diagram of the lattice (P, \leq)

1. What are the top and bottom elements of the lattice?

2. Is this a complete lattice?

3. What is the least upper bound of the set $\{000, 100, 001\}$?

4. What elements does 011 cover?

