Homework 4

- Textbook p272: 24, 34
- Textbook p278-279: 1-10(判断即可), 12, 20
- 1. Show that in a lattice if $a \preccurlyeq b \preccurlyeq c$, then

(1) $a \vee b = b \wedge c$

(2) $(a \wedge b) \vee (b \wedge c) = b = (a \vee b) \wedge (a \vee c)$

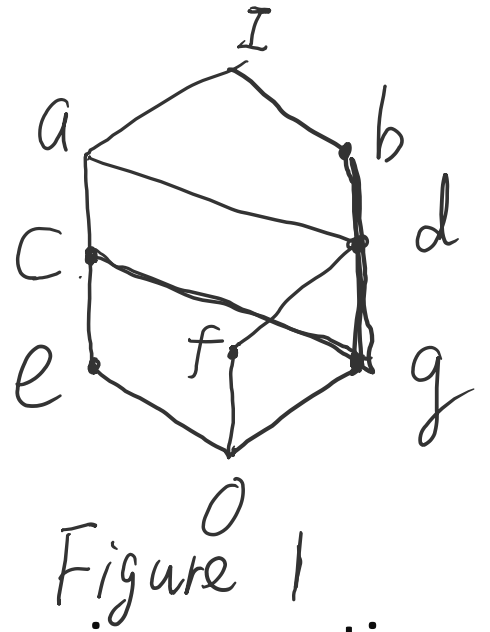

Figure 1

- 2. A bounded lattice is shown in Figure 1, answer the following questions.

(1) Find the complements of a and f.

(2) Is the lattice a complemented lattice? Why?

- 3. Show that in a bounded lattice, the only complement of 0 is I.