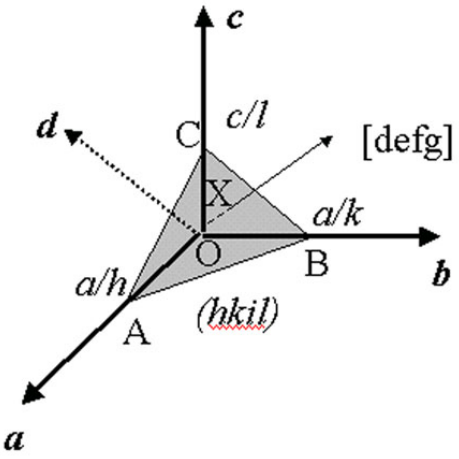
EMSE314--Fall 2003--Homework 2--Name: Changrong Li
Issued: Sep. 15, Due: Sep. 24.

Problem 1

(c) Please note that the length *OD=d/(-i)*.
(e)



By definition, $\overrightarrow{OA} = \frac{a}{h}\vec{a}$, $\overrightarrow{OB} = \frac{b}{k}\vec{b}$, $\overrightarrow{OC} = \frac{c}{l}\vec{c}$

$$\overrightarrow{OX} = x(da\vec{a} + eb\vec{b} + fd\vec{d} + gc\vec{c}) = (2xda + xea)\vec{a} + (xda + 2xea)\vec{b} + xgc\vec{c},$$

where $\vec{a}$, $\vec{b}$, $\vec{c}$ and $\vec{d}$ are unit vectors along each axes.

Problem 2

(1) We have to prove $A_1B_1 // A_2B_2$, i.e. we can't take it for granted that $A_1B_1 = t' = mt$, where m is an integer.
(2) It is worth discussing with what we have deduced because the geometry is not already correct.

Problem 3

(b) Note the residual resistivity.