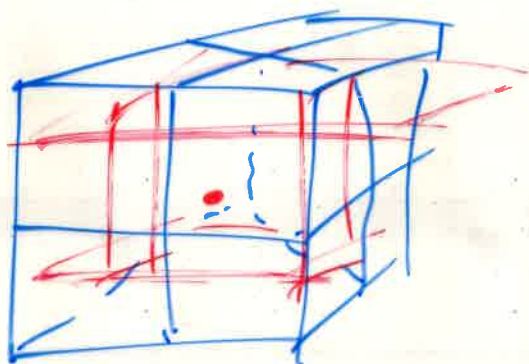
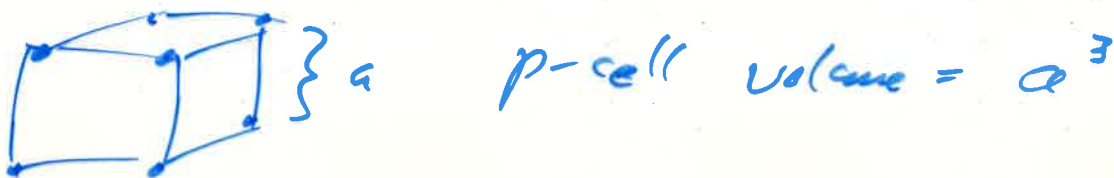


Simple Cubic Lattice (sc) Bravais

1 site per primitive cell



WS



Coordination number = # Nearest neighbors = 6

FCC Face-centered cubic Bravais

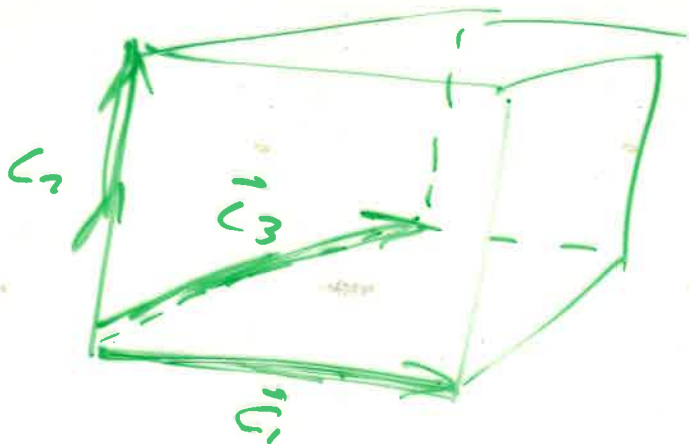
1 site per p-cell?

WS cell is ~~the~~ regular rhombic dodecahedron

Coordination # = 12

Conventional cell

4 sites per conventional cell



BCC Body-Centered Cubic

Bravais

1 sites per μ -cell

Coordination # = 8

conventional cell - 2 sites per conventional cell

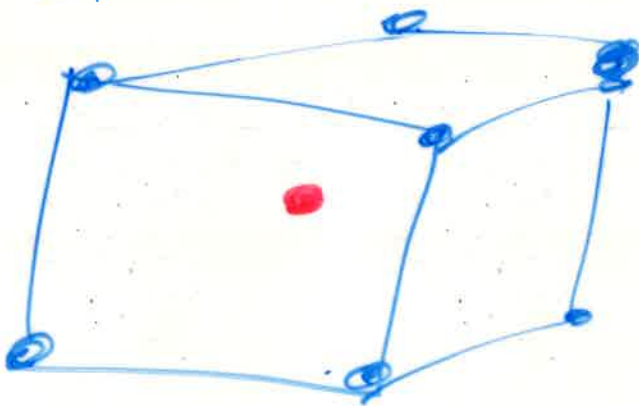
Diamond lattice

not Bravais

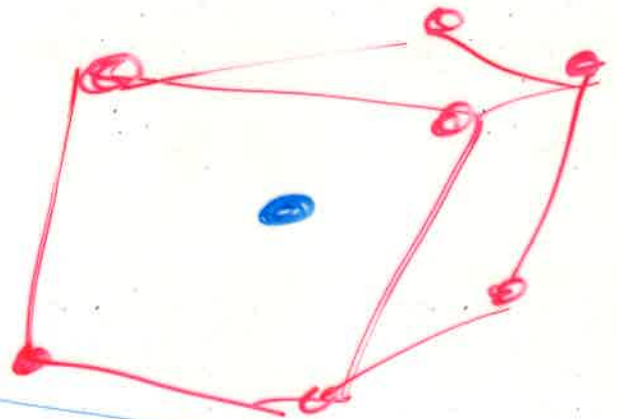
2 sites / μ -cell

8 sites / conventional cell

CsCl

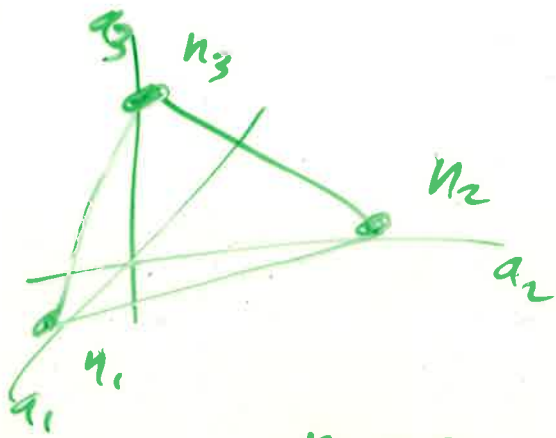


SC
Simple cubic



NaCl

FCC



$$n_1 = 1 \quad n_2 = 2 \\ n_3 = 3$$

$$\left(\frac{1}{n_1} \quad \frac{1}{n_2} \quad \frac{1}{n_3}\right) * \text{LCM}(n_1, n_2, n_3)$$

$$\left(\frac{1}{1}, \frac{1}{2}, \frac{1}{3}\right) * 6 = (6, 3, 2)$$

$\uparrow \quad \uparrow \quad \uparrow$
 $n \quad k \quad l$

e.g. $\left(\frac{1}{1}, \frac{1}{2}, \frac{1}{3}\right) \rightarrow (1, 0, 0)$