7 crystal systems + 3 centering types = 14 Bravais lattices

i = body centered (bcc)

f = face centered (fcc)

c = base centered

14 Bravais lattices + appropriate basis allow us to describe all crystalline solids (230 crystallographic space groups)

Note: not all centering types are allowed in all crystal systems as they would either result in a cell that violates symmetries or in a cell that can be reduced to a smaller cell.

- atoms per unit cell:

cubic-p: $N = 8 \cdot \frac{1}{8} = 1$

bcc: $N = 8 \cdot \frac{1}{8} + 1 = 2$

fcc: $N = 8 \cdot \frac{1}{8} + 6 \cdot \frac{1}{2} = 4$

Coordination number:

cubic - p : 6

bcc : 8

fcc : 12

Note: These numbers are only valid for cells with one type of atom (one sublattice)