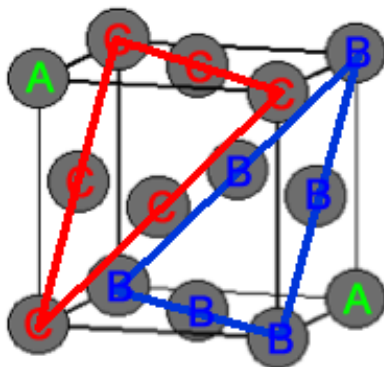


Marks
3

- A face centred cubic (FCC) unit cell has the maximum possible space filling of 74 %. Show the close packed layers, labelling them A, B and C, on the unit cell below.



How many atoms are in the unit cell?

Atoms on corners: $8 \times 1/8 = 1$

Atoms on faces: $6 \times 1/2 = 3$

Total: $1 + 3 = 4$