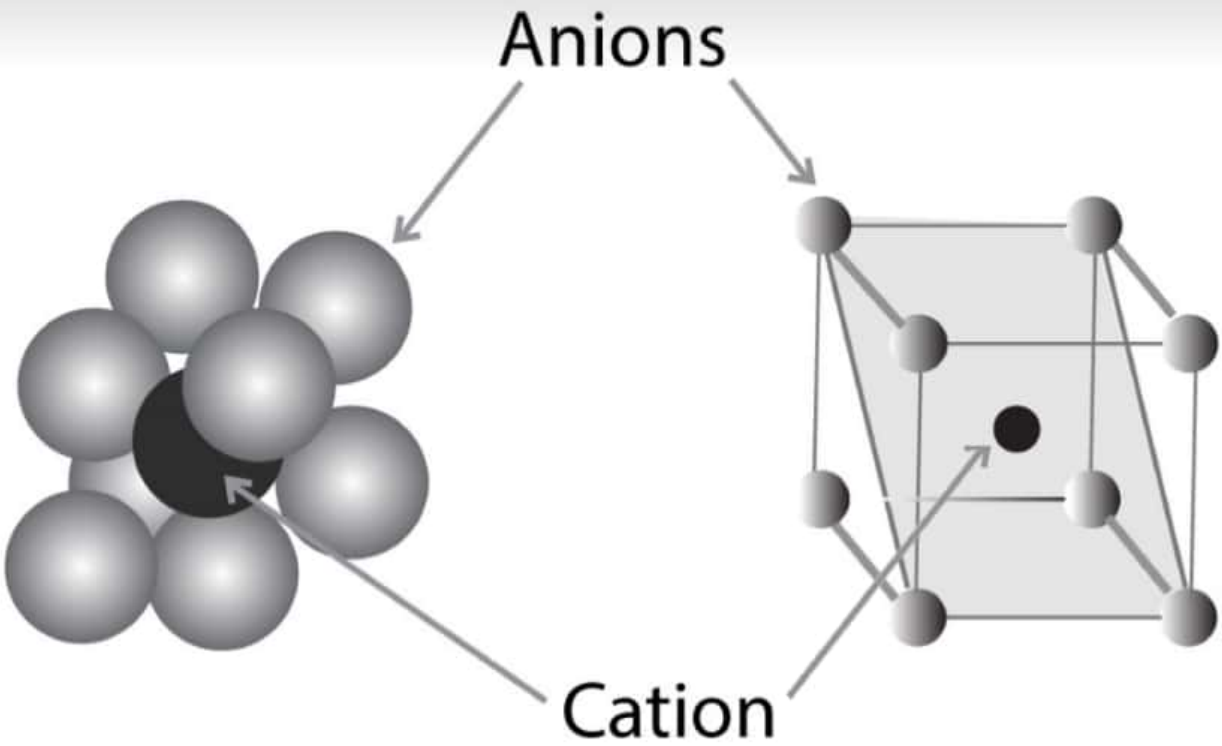
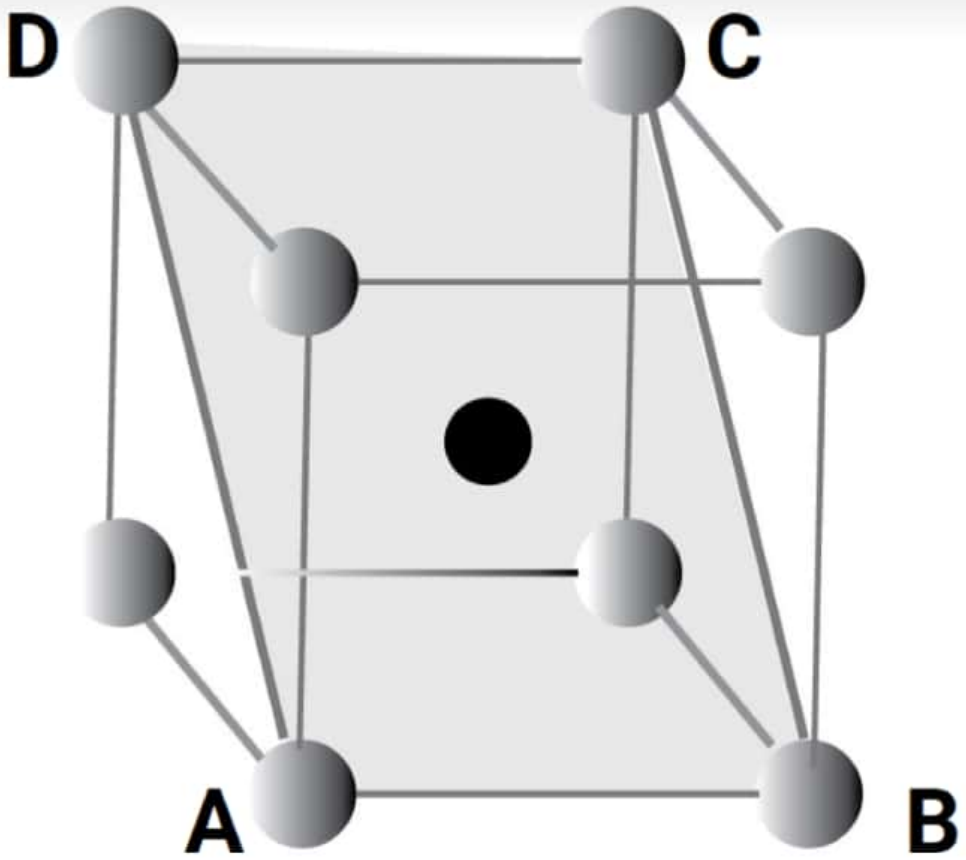
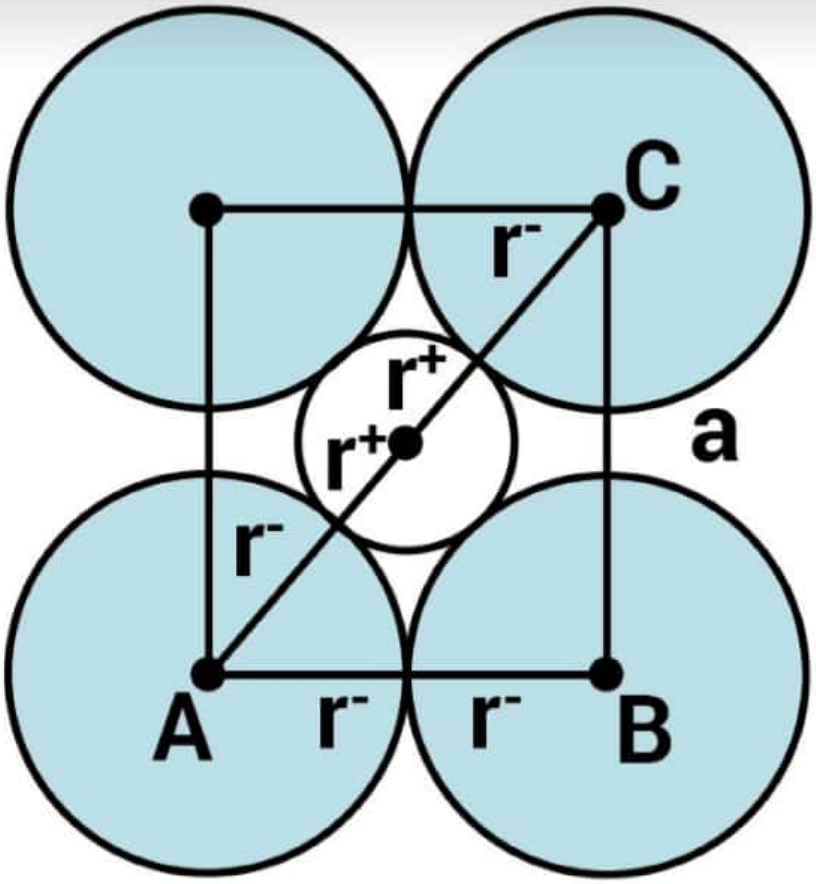
Next we will find limiting radius ratio for CN = 6



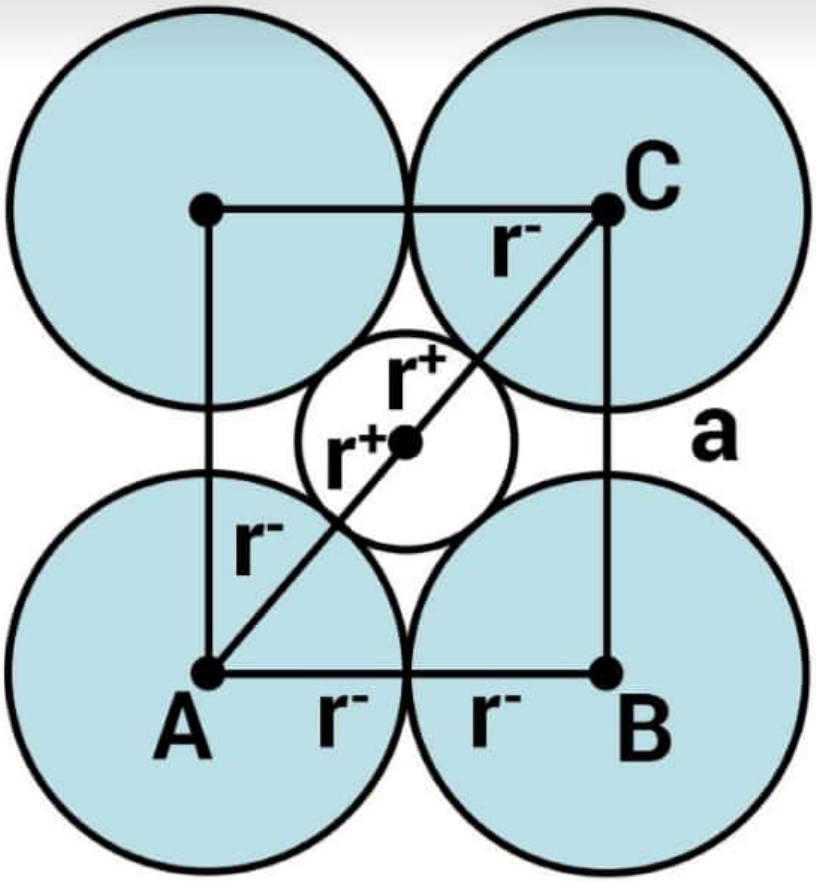
The geometry here is cubic.



To calculate the limiting radius ratio, we will use the plane shown above

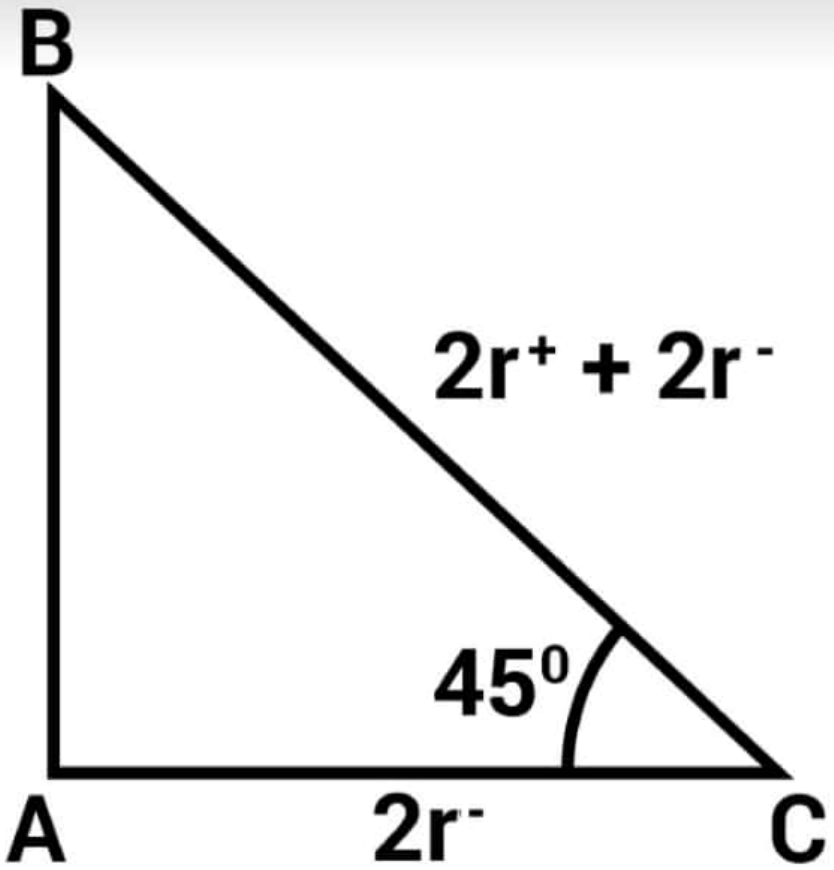


The given plane will look like this. Let r^+ be radius of cation and r^- be radius of anion

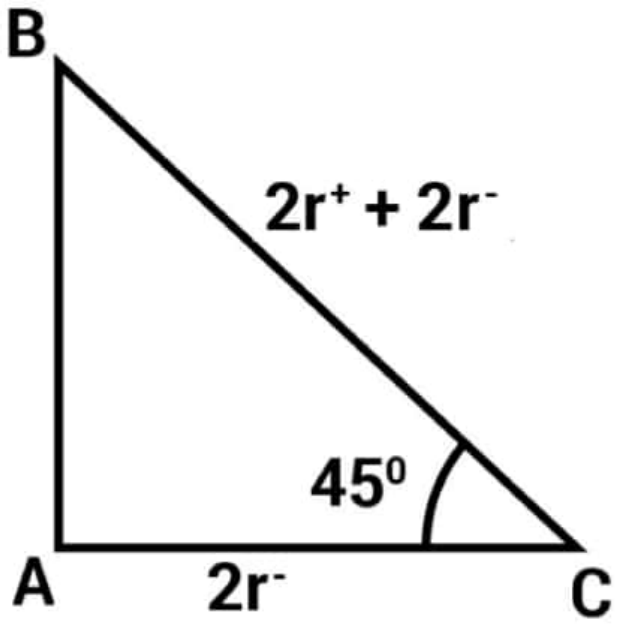


In this plane, AB = $2r^-$. AB is also the side of the cube i.e a.

So a = $2r^-$.



From the cross section, we can draw a right angled triangle ABC



$$\cos 45^0 = \frac{2r^-}{2r^+ + 2r^-}$$

$$\frac{1}{\sqrt{2}} = \frac{2r^-}{2r^+ + 2r^-}$$

$$2\sqrt{2}r^- = (2r^+ + 2r^-)$$

$$\Rightarrow (2\sqrt{2}r^- - 2)r^- = 2r^+$$

$$\Rightarrow \frac{r^+}{r^-} = \frac{2\sqrt{2} - 2}{2} = \sqrt{2} - 1 = 0.414$$

Hence the limiting radius ratio of cubic geometry is 0.732