1. Distance of the centre of mass of a solid uniform cone from its vertex is z_0. If the radius of its base is R and its height is h then z_0 is equal to :
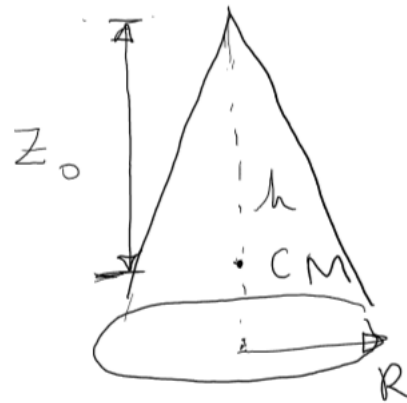
(1) $\dfrac{5h}{8}$

(2) $\dfrac{3h^2}{8R}$

(3) $\dfrac{h^2}{4R}$

(4) $\dfrac{3h}{4}$ ⟵ Correct option

Distance of cm from base is $\dfrac{h}{4}$.

Therefore distance from vertex $= h - \dfrac{h}{4} = \dfrac{3h}{4} = z_0$