1. A conducting ball with radius R has 2 (two) fruit hole shaped ball with each –each finger – finger as big as a And b. Ball conductor the surrounded by ball conductor concentric Which larger with an inner radius of 2R and fingers – part finger outside as big as 2R+a.
On part middle hole ball placed load electricity equal to q_a and q_b. Make it count:
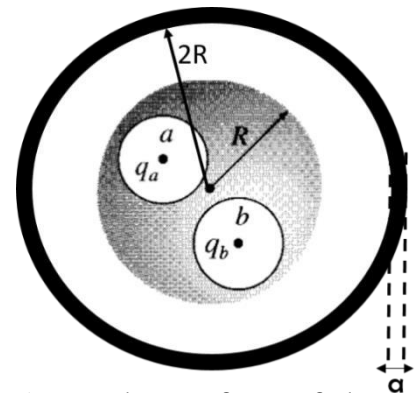
   a. Meeting load electricity on surface in hole with fingers – finger a (σ_a), on surface finger hole – radius b (σ_b), on the inner spherical surface (σ_R), on the surface of the radius in the outer ball (σ_{2R}), on surface outermost ball (σ_{2R+a}) .
   b. Make it count equality Medan electricity in area:
      ➢ Outside ball conductor (r > 2R+a)
      ➢ Between skin ball conductor the outside part (2R+a) < r < 2R
      ➢ Room separator distance between ball conductor in And ball outside (2R<r<R)
      ➢ In in cavity a
      ➢ In in cavity b
   c. Make it count capacitance two fruit ball conductor the

2. A ball with fingers R placed A load as big as q on the center.
   a. Determine potential on center ball, V_{center}
   b. Show that potential average from okay the is:
$$V_{rata-rata} = V_{pusat} + \frac{Q_{enc}}{4 \pi \varepsilon_0 R}$$

3. A ball from material dielectric fingered – finger R own polarization P(r) = kr^2, with k is a constant and r is distance from center of ball. Make it count big :
   a. Density load bound surface σ_b And load bound volume ρ_b.
   b. Medan electricity in in And outside ball
   c. Potential electricity in in And in outside ball