

1. $d \sim \frac{1}{R^2} \left(\frac{\sigma}{\rho g} \right)^{3/2} \sim 10^{-5} \text{ m}.$
2. $Q = -q \left(\frac{5}{4} + \frac{\sqrt{3}}{3} \right).$
3. $L = l\sqrt{2}.$
4. $U_{AB} = 2 \text{ V}, I_{AB} = \frac{1 \text{ V}}{1000r}.$