

$$V(r) = \frac{Q}{4\pi\epsilon_0} \left[\frac{1}{R} + \frac{1}{2} \frac{1}{R} - \frac{r^2}{R^3} \right]$$

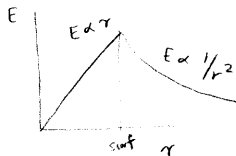
$$V(r) = \frac{Q}{4\pi\epsilon_0} \left[\frac{3}{2R} - \frac{r^2}{R^3} \right]$$

At $r = r_2$, $V = 3.3 \text{ V}$

d) At $r = 0$, $V(r) = \frac{Q}{4\pi\epsilon_0} \frac{3}{2R}$ (same formula)

$V = 4 \text{ V}$

Plot of E vs r



Plot of V vs r

