$$E_P = \frac{1}{4\pi \epsilon_0} \frac{qx}{(x^2 + R^2)^{3/2}}$$

Electric field will be maximum at $x = \pm \frac{R}{\sqrt{2}}$

For a Charged Long Conducting Cylinder

- For $r \geq R : E = \frac{q}{2\pi \epsilon_0 r}$
- For $r < R : E = 0$

Electric Field Intensity at a Point near a Charged Conductor

$$E = \frac{\sigma}{\epsilon_0}$$

Mechanical Pressure on a Charged Conductor

$$P = \frac{\sigma^2}{2 \epsilon_0}$$

Electric Field for Non-conducting Infinite Sheet of Surface Charged Density σ

$$E = \frac{\sigma}{2 \epsilon_0}$$

Electric Field for Conducting Infinite Sheet of Surface Charge Density σ

$$E = \frac{\sigma}{\epsilon_0}$$