

Electric Potential Notes

Electric Field related to Force

$$\vec{E} = \frac{\vec{F}}{q}$$

Work done to accelerate a charge

$$W = \int_a^b \vec{F} \cdot d\vec{r}$$

Electric Potential Energy:

$$W = -\Delta U$$

Electric Potential:

$$V = \frac{U}{q}$$

Electric Potential Difference: (aka Voltage)

$$\Delta V = \frac{\Delta U}{q}$$