$$F_N = \frac{k_e Q_1 Q_2}{d^2}$$

Force newtons = Coulomb's Constant * Charge 1 * Charge 2 / Distance squared.

$$K_e = 9 \cdot 10^9 \ \frac{NM^2}{C^2}$$

A positive force implies repulsion, a negative force implies attraction.

$$\mathrm{E}_F = \frac{k_e Q}{d^2}$$

A Coulomb (C) is a unit of electrical charge.

Electric field = Coulomb's constant * Particle of interest's charge / distance squared.

$$\Delta \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 2 \\ y \end{bmatrix}$$

Directionality or the direction of the vector is dependent on the inverse tangent of the ratio of y and x component respectively.

Inverse Tangent (Opposite / Adjacent)