$$F = k * \frac{q' * q}{r^2} \tag{1}$$

$$F = 8.99 * 10^9 * \frac{N * m^2}{C^2} * \frac{(40C)^2}{(5000m)^2}$$
 (2)

$$F = 5.8 * 10^5 N \tag{3}$$