Electric Fields Lecture Handout

Directions: Complete the Notes and sample problems below according to the lecture.

• Electric Field Strength, \( E \), is the force on a stationary positive test charge per unit charge in an electric field

Formula:

Sample Problem:

• What is the force on an electron that is 0.5 m away from a positive 2C point charge?

• What is the electric field strength at this point?

Potential Difference Equation:

Practice Problem

• Moving a point charge of 3.2 x 10^-19 C between plates in an electric field requires 4.8 x 10^-18 J of energy. What is the potential energy difference between these points?