Name _____ Date _____ Period _____

Using Concepts

1. A positive charge of 2.4×10^{-6} C is acted on by a force of 0.43 N at a certain distance. What is the electric field intensity at that distance?

2. What charge exists on a test charge that is acted on by a force of 3.60×10^{-6} N at a point where the electric field intensity is 1.60×10^{-5} N/C?

3. The electric field intensity between two charged plates is 2.80×10^{4} N/C. The plates are 0.0640 m apart. What is the potential difference between the plates in volts?

4. A voltmeter connected between two plates registers 38.2 V. The plates are separated by a distance of 0.046 m. What is the field intensity between the plates?

5. How much work is done to transfer 0.47 C of charge through a potential difference of 12 V?

6. A 9.0-V battery does 1.0×10^{3} J of work transferring charge. How much charge is transferred?