Name: _____   Period _____

Electric Forces and Fields Whiteboard 2

1. What is the electrical force between a Helium nucleus (two protons) and an electron 1.3 x 10^{-9} m away?

2. A. What is the strength of the electric field 2 x 10^{-4} m away from a charge of 5 x 10^{-6} C?

B. What is the force on an electron placed at the point indicated in part a?

3. How far apart are two charges of magnitude 3.2 x 10^{-19} C if they exert a force of 5 x 10^{-16} N on each other?

4. If the force on a proton in an electric field is 0.005 N, then what is the strength of the electric field?

5. What is the electric force on a charge of 3 C if it is in an electric field of 5 x 10^{-8} N/C?

6. What is the electric field 2×10^{-10} m away from an Iron nucleus (26 protons)?

7. If the force on a electron in an electric field is 4×10^{-8} N, then what is the strength of the electric field?

8. What is the electric force on a charge of 1.5×10^{-4} C if it is in an electric field of 2.4×10^{-7} N/C?

9. A. What is the strength of the electric field 12×10^{-7} m away from a charge of 4×10^{-3} C?

B. What is the force on a proton placed at the point indicated in part a?

10. How far apart are two charges of magnitude 5 C if they exert a force of 4.3×10^{-5} N on each other?