

ENEE 380 Fall 2003. Homework #1 2/4/03

Due 2/13/03

- (1) Cheng Problem 2.5
- (2) Cheng Problem 2.7
- (3) Cheng Problem 2.9
- (4) Cheng Problem 2.20
- (5) Cheng Problem 2.24
- (6) Cheng Problem 2.26
- (7) Cheng Problem 2.32
- (8) Cheng Problem 3.5
- (9) Cheng Problem 3.6
- (10) Cheng Problem 3.10
- (11) Cheng Problem 3.11
- (12) Cheng Problem 3.13
- (13) α -particles (helium nuclei) are fired at heavy nuclei whose charge is 50 times that of an electron. What is the closest possible distance of approach of an α -particle and a nucleus? You may assume that each heavy nucleus is heavy enough that it does not move.
- (14) A charge Q is uniformly distributed throughout a sphere of radius a . Calculate the work that must be done to bring a 1 Coulomb charge up to the center of the sphere from infinity.