

Electricity and Magnetism, PHYS 340 Problem set 3 (revised)

- 1.** Problem 3.2 (3.2).
- 2.** Problem 3.3 (3.3).
- 3.** Problem 3.7 (not in 3rd edition):

The x-y plane is a grounded conductor.

Find the force on a charge = $+q$ at a distance $3d$ above the x-y plane (coordinate $(0,0,3d)$) if there is a charge $-2q$ at a distance d below it (coordinate $(0,0,d)$).

- 4.** Problem 3.9 (3.8).
- 5.** Problem 3.11 (3.10).
- 6.** Problem 3.15 (3.14).
- 7.** Problem 3.27 (3.26).
- 8.** Problem 3.29 (3.27).
- 9.** Problem 3.30 (3.28).

Supplementary problems C:

- C1.** Problem 3.16 (3.15).
- C2.** Problem 3.31 (3.29)
- C3.** Problem 3.34 (3.32)
- C4.** Problem 3.36 (3.33)

(Numbers from Griffiths book, 4th edition; in parentheses, to the 3rd edition)