## Assignment # 3 for Electricity and Magnetism: Physics 334 Introduction to Electrodynamics (Third Edition) David 1. Griffiths

- 1. An infinite conducting cone of half-angle  $\alpha$  is maintained at potential  $V_0$  and insulated from a grounded conducting plane.
  - (a) Determine the potential in the  $\alpha \leq \theta \leq \pi/2$ .
  - (b) Determine the electric field intensity in this region.
  - (c) Determine the charge density on the con's surface.
- 2. Griffiths : Chapter 3 # 3.1.
- 3. Griffiths : Chapter 3 # 3.6.
- 4. Griffiths : Chapter 3 # 3.7.
- 5. Griffiths : Chapter 3 # 3.8.