

Physics 405 Spring 2009

Problem Set #5: Due Friday Feb. 27 2009

Read Griffiths Chap. 2.5

(1) **Griffiths**, Problem 2.32 (10 points)

(2) **Griffiths**, Problem 2.35. (10 points)

(3) **Griffiths**, Problem 2.36. (10 points)

(4) **Griffiths**, Problem 2.39. (10 points)

Show that in the limit that the spacing d between the cylinders becomes very small, you recover the canonical form for the capacitance: $C = \epsilon_0 A/d$, where A is the area.