

Physics 212
Problem Set 4
Due Friday Sept. 26, 2008

Chapter 2 – Problems 15, 16, 20, 23, 24, 25a, 28, 30b

In problem 20, just find the \vec{E} field that is not possible. You don't have to find the potential.

In problem 25, you don't need to do parts b) and c). However, do consider the case where the right hand charge in part a) is switched from $+q$ to $-q$.

In problem 28, take the radius of the sphere to be a rather than R . This will avoid confusion with our notation in lecture $R = |\vec{r} - \vec{r}'|$. Also, you don't need to compare to the results of problem 2-21.

In problem 30b, take the radius of the cylindrical tube to be a .

Note: Hour Exam I will be on Wednesday, October 1, from 4:00 to 5:15. There will be no class that day.