

Physics 129a  
Problem Set Number 4  
Due Wednesday, October 31, 2007

Reading: The course note on “Distributions” on the web. This note provides firmer foundation for the discussion of Green’s functions in chapter 9 of Mathews and Walker.

15. A variation on our integral equations: Exercise 11 in the Integral Equations course note.
16. Exercise on scalar products: Exercise 5 in the Hilbert Spaces course note.
17. Exercise on linear operators in finite-dimensional Euclidean space: Exercise 6 in the Hilbert Spaces course note.
18. Exercise on operators: Exercise 7 in the Hilbert Spaces course note.
19. Exercise on singularities in our test functions: Exercise 2 in the Introduction to Distributions course note.