Partial Differential Equations - Homework Day 13

Professor:
Dr. Joanna Bieri
joanna_bieri@redlands.edu

Read and Take Notes

1. *Farlow* - The next chapter we will be covering is Lesson 15. Because of our pause day we are skipping Lesson 14, but it would still be good to read!!!

Homework

1. *Problems* - Do problems $1-4$ at the end of Chapter 13. You should try to find the inverses! Use the tricks from class, but if you get totally stuck write the answer as $\mathcal{L}^{-}1[F(S)]$.
2. *Additionally* - Write a flow chart or some notes about how to use integral transforms in solving PDEs. What are some things that you need to be careful of? How would you pick the correct transform given a problem?

Other Notes:

1. Look carefully at the integral transform tables at the back of the book. It may even be helpful to look up some printable .pdf versions of integral transform tables!
2. Start learning how to decide which transform to use! When would you choose eigenfunction expansion vs. Fourier transform vs. Laplace transform?