

**Problem Set 2**  
**ENGN/PHYS 225—Winter 2021**  
**Due Date: Friday, 15 Feb, 4pm**

## Foreword

This assignment plays mostly with matlab and also explores the Laplacian a bit more. You should hopefully have a good start via the workshop time in class! Matlab is a powerful tool for computing and visualizing. No doubt the learning curve can be difficult to climb at first, but the long-term returns are well worth the near-term investment. Computers can be your friend :)

## Problems

**1. Sharpest tool in the math shed: the Laplacian**

Complete problem 5 in the matlab workshop problems . Please submit: 1. written work; 2. final figures; and 3. matlab code in a single document or single folder on box.

Note the Gaussian function appears time and again throughout many branches of math, stats, physics, engineering. It is well worth getting acquainted with what the function looks like!

**2. Field Day: Electric Dipole** Similarly, complete problem 7 from the workshop. The net result should be your very own rendering of the classic dipole electric field!