

**BE/Bi 101: Order-of-Magnitude Biology**  
**Homework 8**  
**Due date: Friday, March 6, 2015**

“Parting is such sweet sorrow...”

—Juliet Capulet

**1. Your turn.**

We hope that this class has changed the way you think about problems you come across in your classes, research, and every day life. Beyond that, we also hope you see the world in a different way. We like to picture the students of the class going about their daily activities estimating one thing after another.

Your head may be full of estimates you would like to do. For this homework, we would like you to pose a question and perform an order-of-magnitude estimate to address it. When you pose the question, write at least a paragraph giving the pertinent background and then concretely pose the quantitative question. The question you pose should be similar in spirit to those presented in class. After doing an order-of-magnitude calculation to address your question, perform the estimate in at least one other way to do a cross-check. After you perform the estimates, write down any other questions that came up through the thought process of performing your estimate.

The problem set should be sent via email to Rob, Justin, David, and Pradeep in PDF form. (No Word documents.)