Homework 14  
Due: Friday, December 8

Start studying for the final!

1. [BC] 67.1. *Make sure you understand the relation of this problem to integrals, as in BC 67.4.*

2. [BC] 69.7.

3. Let \( C \) be the circle of radius \( 1/2 \) centered at the origin, taken once in the positive direction. Use the result of BC 69.7 to evaluate the following integrals:
   
   \[
   \begin{align*}
   (a) & \quad \int_C \csc^2(z)dz. \\
   (b) & \quad \int_C \frac{dz}{(z+z^2)^2}.
   \end{align*}
   \]
