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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:
  - (a)  $\int_C \csc^2(z) dz$ .
  - (b)  $\int_C \frac{dz}{(z+z^2)^2}$ .
4. [BC] 72.1.
5. [BC] 72.6.