
Homework 14

This homework set isn't due, in the sense that it won't be corrected; but you're strongly encouraged to take it seriously, since the material here is fair game 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.