Physics 230

Homework Set 6

Due Date: Thursday October 1, 2015

Use residue theorem to calculate the following integrals

1) \( \int_{C} \frac{e^z}{(z-1)^2} \) C: circle with radius 2 and center at origin
2) \( \int_{C} \frac{e^{1/z}}{} \) C: circle with radius 1 and center at origin
3) \( \int_{C} \frac{3z^2+2}{(z-1)(z^2+9)} \), Do this for two curves c given below
   a) C: circle with radius 2 and center at x = 2
   b) C: circle with radius 4 and center at origin

Reading Assignment: same as 5 (Ch. 11, Complex Variable Theory)

List of pages: 497-498, 509 -510