

MATH 415/515 Quiz 1

Name: _____

Show all work. 5 points each.

1. Show $u = e^x \cos(y)$ is harmonic everywhere and find v so $f = u + iv$ is analytic.

2. Evaluate $\oint_C \bar{z}^3 dz$ where C has the parameterizations $C : z = 2e^{it} \ 0 \leq t \leq \pi$