

MATH 4103

Quiz 4

Spring 2016

Name: _____

Problem 1. [1+1 points]

(a) Show that the function $f(z) = -2xy + i(x^2 - y^2)$ is differentiable everywhere in \mathbb{C} .

(b) If $f(z) = -2xy + i(x^2 - y^2)$, find $f'(z)$.

Problem 2. [1 point] Let the function $f(z)$ be defined by $f(z) = iz^2$. Using the differentiation formulas, find $f'(z)$.