Math 302
Any answer without justification worths nothing

Quiz 5

8/ 12/ 2015

Name: **ID #**

Problem 1 (4 points): Show that $f(z) = |z|^2 z$ is not differentiable at any $z \neq 0$. How about $z = 0$?

Problem 2 (3 points) Find all complex solutions of $\sinh z = i$

Problem 3 (3 points) Prove the identity $\cos 2z = \cos^2 z - \sin^2 z$, z is complex.