

Math 4450: Homework 2

Due September 9, 2009

Written problems

1. 1.5.14
2. 1.6.24

Problems

1. 1.6: 16, 17, 18, 19
2. 1.7: 2, 3, 4
3. Consider the two functions $f : \mathbb{C} \rightarrow \mathbb{C}$ and $g : \mathbb{C} \rightarrow \mathbb{C}$ given by

$$f(z) = e^{i\pi/3}z$$

$$g(z) = z + 1.$$

Describe geometrically what these functions do to the Riemann sphere.