

MA 713 Exercises

You should pass in answers to the following exercises on Wednesday, February 2.

- 2.1. Prove that stereographic projection is a conformal map. (Recall that stereographic projection takes lines and circles in \mathbb{C} to circles on S^2 . To show that it is conformal, it is enough to show that it preserves the angles between any two intersecting lines in \mathbb{C} when it maps those lines to circles on S^2 . The proof that I know is very geometric, but I imagine that there is an analytic proof as well.)
- 2.2. Exercise 4 on p. 28
- 2.3. Exercise 4 on p. 32

Here are some other exercises that I like:

- Exercise 5 on p. 28
- Exercises 1 and 2 on p. 32