

MA 713

Exercises to be assigned eventually

- Additional Exercise 6: Suppose that  $f(z)$  is entire and that the harmonic function  $u(x, y) = \operatorname{Re}[f(z)]$  is bounded above on  $\mathbb{R}^2$ , i.e., there exist an  $M$  such that  $u(x, y) \leq M$  for all  $(x, y) \in \mathbb{R}^2$ . Show that  $u(x, y)$  is constant on  $\mathbb{R}^2$ .
- Ahlfors Exercise 5 on p. 130
- Ahlfors Exercises 1–3 on p. 133
- Ahlfors Exercises 2 and 6 on p. 136
- Ahlfors Exercise 5 on p. 148 (hard)
- Ahlfors Exercises 1 and 2 on p. 154
- Ahlfors Exercises 1 and 3 on p. 161