

Homework 1

Proofs and explanations should always be written, as often as possible, using complete English sentences. You should always explain and justify each of the steps in your solution, unless otherwise noted. Write your name and "Math 185, section 1" on the top right of the first page.

A remark on grading: part of your homework grading will be based upon completion, so if you reasonably attempt these problems you will receive full credit for this portion. In addition, several randomly selected problems will be graded for accuracy. Grading the homework will be done by a reader, but if you have any questions about your grade, you should come to me.

Homework problems:

Sarason, I.2, Exercises 1 and 3, I.4, Exercises 2 and 3, I.9, Exercise 2, I.10, Exercises 2 and 3.

Suggestion for I.9, Exercise 2:

Forget about the suggestion given by Sarason, and use the formulae

$$\cos \phi - \cos \psi = -2 \sin \frac{\phi + \psi}{2} \sin \frac{\phi - \psi}{2}$$

and

$$\sin \phi - \sin \psi = 2 \cos \frac{\phi + \psi}{2} \sin \frac{\phi - \psi}{2}$$

to compute the argument of $\pm((\cos \phi + i \sin \phi) - (\cos \psi + i \sin \psi))$.