

MATH 185-1: Complex Analysis

Homework #9

Due April 14, 2016

All problems are from Gamelin, *Complex Analysis*, unless stated otherwise. If you use an exercise that has not been shown on a previous assignment or in class, prove it first before applying it.

1. Exercise VI.1.1
2. Exercise VI.1.5
3. Exercise VI.2.1 (see bottom of p. 172 and top of p. 173 for the definition of the principal part)
4. Exercise VI.2.5 (skip the part about giving a second proof using Morera's theorem)
5. Exercise VI.2.7
6. Exercise VI.2.8 (see middle of p. 174 for definition of meromorphic)
7. Exercise VI.2.12