

Math 416 Complex variables

Problem Set 7

Due: October 29 in class

Do the following exercises from the text book:

1. Page 160, Question 1. (a) and (f)
2. Page 161, Question 3
3. Page 161, Question 4
4. Page 171, Question 4
5. Page 172, Question 10
6. Page 179, Question 5
7. Use Green's theorem to show that if C is a positively oriented simple closed contour, then the area of the region enclosed by C is given by

$$\frac{1}{2i} \int_C \bar{z} dz.$$