

Homework Set 5

DUE: Thurs, Feb. 19, 2009. Late papers accepted until 1:00 Friday.

The *Problem Collection* is at <http://www.math.upenn.edu/kazdan/609S09/hw/hw-collection.html>

NOTE: Some of these use the *maximum principle* which we'll complete in class on Tuesday.

1. Problem Collection p. 2 #2 (give examples illustrating your assertions), #4.
2. Problem Collection p. 4 #1, 6
3. Problem Collection p. 5 #4
4. Problem Collection p. 6 #2
5. Problem Collection p. 10 #6
6. Problem Collection p. 14 #4, 6
7. Problem Collection p. 45 #3, 4
8. Let $f = u + iv$ be analytic in some neighborhood of the origin. Find the Cauchy-Riemann equations in polar coordinates.