

MATH 555 — FALL 2016 — HOMEWORK ASSIGNMENT 1 — DUE THURSDAY,
SEPT. 15

- (1) (Tuesday?) Page 11, Problem 2(b). Be sure to find *all* the complex numbers satisfying the given condition.
- (2) (Wednesday?) Page 11, Problem 8.
- (3) (Thursday?) Page 12, Problem 15(b). Find the polar form first. Write your answer in the form $a + ib$.
- (4) (Friday?) Page 12, Problem 20(h). Write your answer in the form $a + ib$.
- (5) (Saturday?) Page 12, Problem 21. Hint: De Moivre's theorem, and recall the formula for partial sums of a geometric series.
- (6) (Sunday?) Page 12, Problem 23.
- (7) (Monday?) Page 21, Problem 8. The last line of this problem should read "Show that this cannot happen unless α is a negative (or zero) purely real number."
- (8) (Tuesday?) Page 21, Problem 12(b). The root is here the positive n th root, but q could be complex.
- (9) (Wednesday?) Page 22, Problem 18.