UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Department of Electrical and Computer Engineering

ECE 498MH Signal and Image Analysis

Homework 1

Fall 2014

Assigned: 2/7/2017 Due: 2/7/2017

Reading: 1–40

Problem 1.1

Solutions to the waveform plotting part are omitted. Solution to the phasor part is:

$$X = Y + Z = e^{j\pi/6} - je^{-j\pi/3} = 0$$

Problem 1.2

Solutions to the waveform plotting part are omitted. Solution to the phasor part is:

$$X = Y + Z = e^{-j5\pi/6} - je^{j2\pi/3} = 0$$