Circuits as Systems – ECEN 2260 – Prof. Wagner

HW 1  Due Friday August 28 in class

• Staple this assignment sheet as the top cover to your homework.
• Review Appendix A.
• A correct answer, without showing how you came up with it, will get you 0 points. Show your work!

1. For $z_1 = 3 + 4j$, $z_2 = 5 + 7j$, $z_3 = 5 \angle (-30\degree)$ Compute $z = z_2 + (z_1z_3)^*$

2. (a) $(1+i)^4 = -4$
   (b) $(1+i)^7 = -2^3(-1+i)$
   (c) $(1+i\sqrt{3})^6 = 2^6$

3. Find the 3 roots of the equation $z = (-1)^{1/3}$ and plot in the complex plane

4. TRT Problem 8-11

5. TRT Problem 8-12