Operational Amplifiers (Op-Amps)

1. a. Drive a 150 ohm load from your function generator and determine the magnitude of the voltage.

   b. Without changing the amplitude setting of the function generator, introduce an op amp voltage follower between the function generator and the load. What is the difference in the voltage across the load? What is the gain of the voltage follower? Explain.

2. Build and test a gain of 50 inverting amplifier. Build and test a gain of 50 non-inverting amplifier. What is the high-frequency limit of each?

3. Build a differentiator, and observe its output vs input with different waveforms over a range of frequencies.


5. a. Build a differential amplifier using stock resistors, assuming only their nominal values. Measure the common mode rejection ratio. (Measure the common mode gain by driving both inputs with the same signal. Measure the difference mode gain by grounding one input and driving the other.)

   b. Tweak the resistors to maximize common mode rejection. How good can you make the common mode rejection ratio?