1. In this lab you will explore the two RC filters shown in the **Description and Background** section of the **Experiment Guide**. Derive the equation for the magnitude of the transfer function for the filter of Fig. 1 in which the output appears across the resistor (the answer appears below the circuit schematic). (Note: the transfer function for the filter of Fig. 4 was derived in class.)

2. Why does the lab write-up specify that you should use a “non-polarized” capacitor?

3. If the ordinary frequency, in Hz, for a sinusoidal signal is 100 Hz, what is the corresponding angular frequency of that signal (both magnitude and units)?