

**Problem Set 7**

Due Tuesday March 11, 2003

Reading Assignment: Textbook pp. 183 - 199

1. Textbook, problem 5.5.
2. A pair of biopotential electrodes are placed against one another such that they electrically contact each other through their electrolyte gel. The impedance between these electrodes is measured at a very low frequency and found to have a magnitude of 2,000 ohms. The measurement is then repeated at a very high frequency and now the magnitude of the impedance is found to be 500 ohms. Draw the equivalent circuit for the electrode pair and for just one of the electrodes. Indicate the values for the resistors in these circuits. What would you expect the dc voltage to be for the electrode pair. Please explain your answer.
3. Textbook, problem 5.9.