1. Show that the rise time (the time required to go from 10% to 90% of its final value) of a simple RC circuit is 2.2RC.

2. Design a “rumble” filter for audio. It should pass frequencies greater than 20 Hz. Assume the source impedance is zero (that is, the voltage supply is perfect) and 10K load impedance.

3. Make a figure showing the expected output of the filter designed in the previous problem. (Remember, looking professional is important).