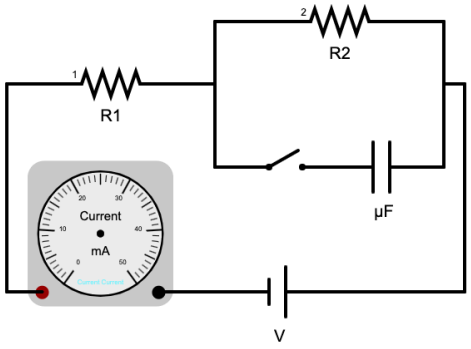
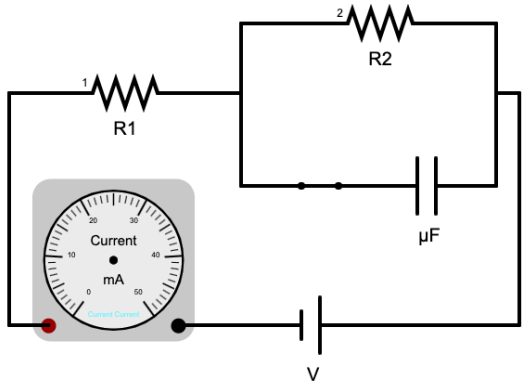
RL Circuit Powered by AC

Step 1: Fill in the voltage of the battery and the capacitance of the capacitor. Then use arrows to show the flow of electricity through the circuit while the switch is in the up position as shown below. Also show the location of the needle when the switch is up. Calculate the total resistance in the circuit



Step 2: Fill in the voltage of the battery and the capacitance of the capacitor. Then use arrows to show the flow of electricity through the circuit while the switch is first closed and the capacitor is still uncharged as shown below. Also show the location of the needle when the switch is first closed. Calculate the value of R1 and then determine R2



Step 3: Calculate the change stored on the capacitor once the capacitor is fully charged. Enter your answers into your program to check that you did everything properly