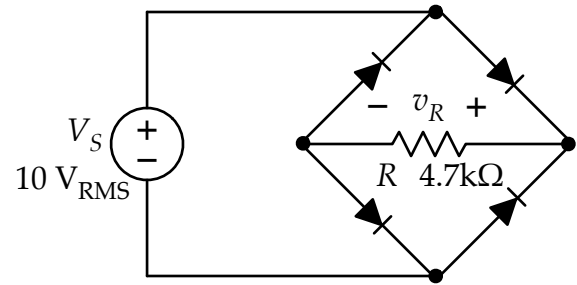A full-wave rectifier circuit is shown at right. The
source is a sinusoidal with a frequency of 60 Hz.

(a) Use SPICE to simulate the circuit and make a plot of the rectified resistor voltage as a function of
time. Use a transient simulation with a sinusoidal source. Run the transient for at least 4 periods (of the
source) in order to clearly see the ripple voltage.

(b) Put a 100-μF capacitor in parallel with the resistor and re-run the simulation. Make a plot of the
voltage across the resistor / capacitor combination. From the plot, determine the ripple voltage.
Compare the ripple voltage obtained from the plot to the value calculated using the ripple voltage
formula.

(c) Repeat part (b) but replace the 100-μF capacitor with a 33-μF capacitor.

Write your answers — and whatever work will fit — on this sheet. Staple any sheets with additional work behind.