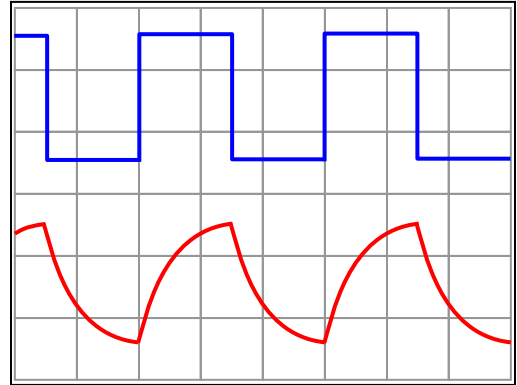


Name: _____

This image of a 'scope screen is set to 50 ms/div, and 5 V/div. Two channels are shown together; the blue is a function generator, and the red is measured across a capacitor that is in series with a resistor. The function generator is charging and then discharging the capacitor through the resistor, as usual. You have already measured $R = 2000 \Omega$.

To answer these questions, you are strongly encouraged to draw some straight pencil lines on the scope screen, and carefully measure between them with a *ruler*.



1. What is V_{pp} of the function generator?

2. What is the period of the function generator?

3. What is the frequency of the function generator?

4. What is V_{pp} of the red line?

5. This question is worth 4 points! What is the time constant τ for the red signal? Find a way to use either the charging or discharging equations for capacitors. You'll need some additional measurements from the plot!

6. What is the capacitance in this circuit?