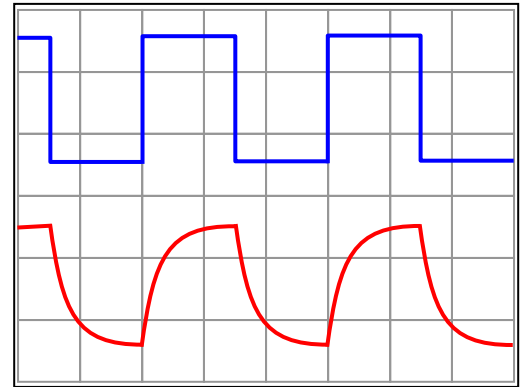


Name: _____

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 discharging the capacitor through the resistor, as usual. You have already measured $R = 1300 \Omega$.

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 the amplitude 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 the amplitude of the red line? Hint: you were already told in the text of the question that it's exactly the same as question 1 (but it's far easier to measure using the blue line...)
5. This question is worth 4 points. Recall the rule for how much an exponential function decays after 1 time constant. What is the time constant τ for the red signal?
6. What is the capacitance in this circuit?