Prelab 4 Homework

Phys 276

Spring 2015

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1. Suppose you create a circuit with a 10 nH inductor and a 10 kilo-ohm resistor in series. What is the time constant (the time it takes for the charge on the inductor to drop by 1/e) of the circuit?

2. In the circuit shown in Fig. IV-8 of the *Experiment 4* description, what can you say about the sum of the voltage drops on the inductor and resistor?