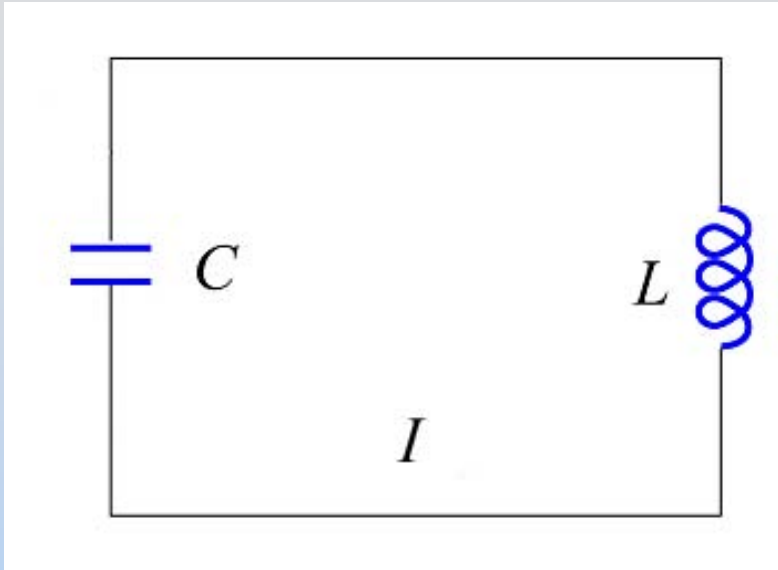
Concept Question: LC Circuit

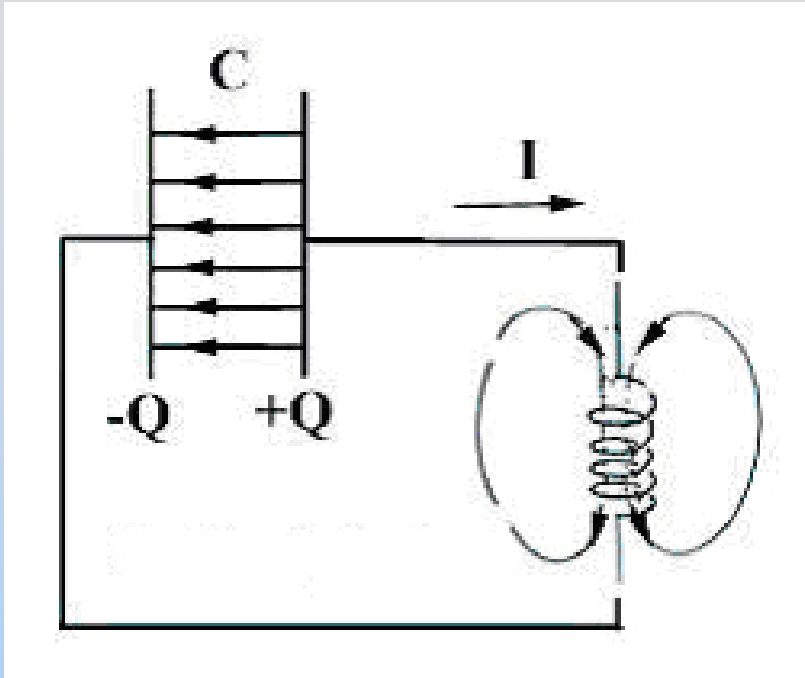
Consider the LC circuit at right. At the time shown the current has its maximum value. At this time



1. The charge on the capacitor has its maximum value
2. The magnetic field is zero
3. The electric field has its maximum value
4. The charge on the capacitor is zero
5. Don’t have a clue

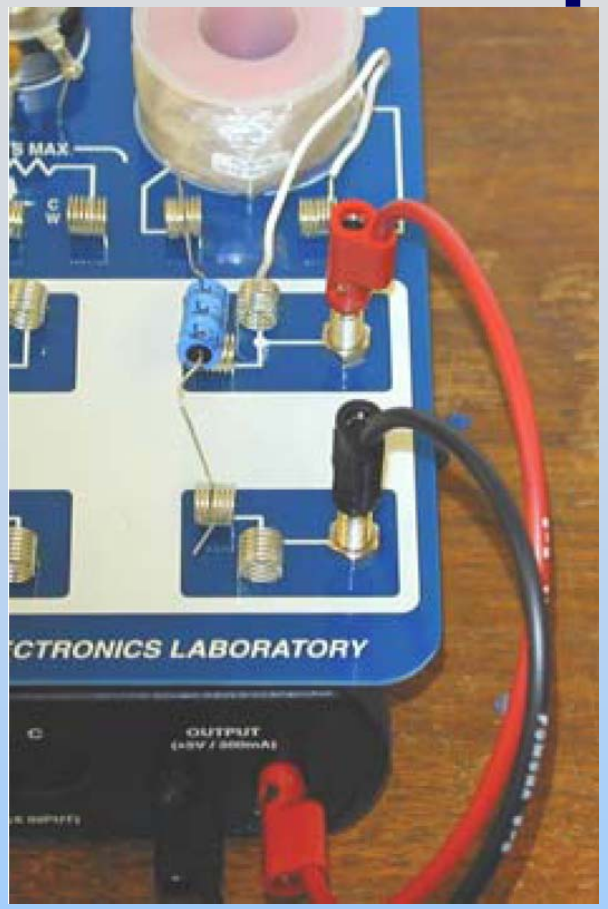
Concept Question: LC Circuit

In the LC circuit at right the current is in the direction shown and the charges on the capacitor have the signs shown. At this time,



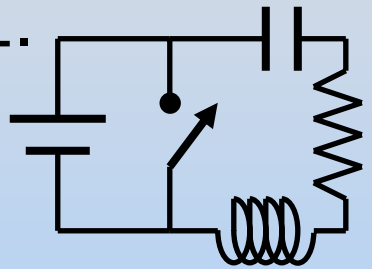
1. I is increasing and Q is increasing
2. I is increasing and Q is decreasing
3. I is decreasing and Q is increasing
4. I is decreasing and Q is decreasing
5. Don't have a clue

Concept Question: Expt. 8

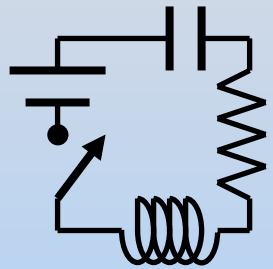


In today's lab the battery turns on and off. Which circuit diagram is most representative of our circuit?

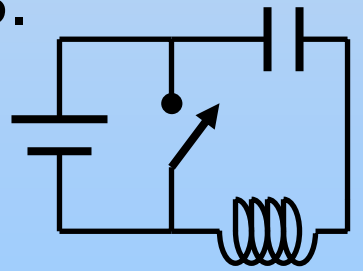
1.



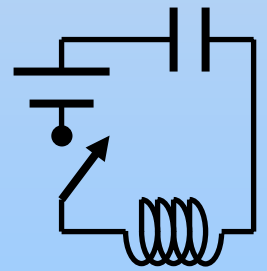
2.



3.



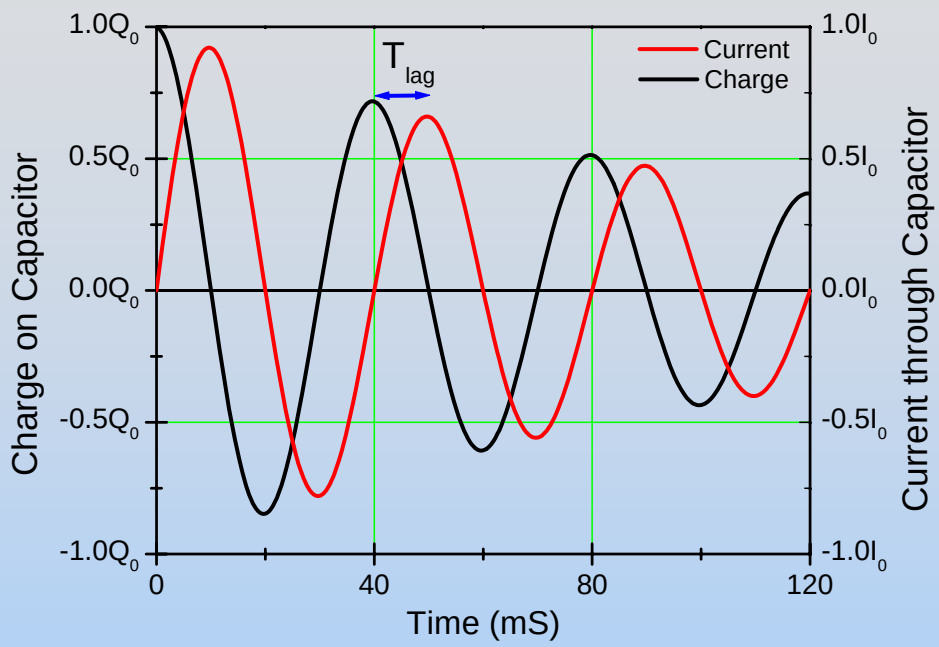
4.



Load lab while waiting…

Concept Question: LC Circuit

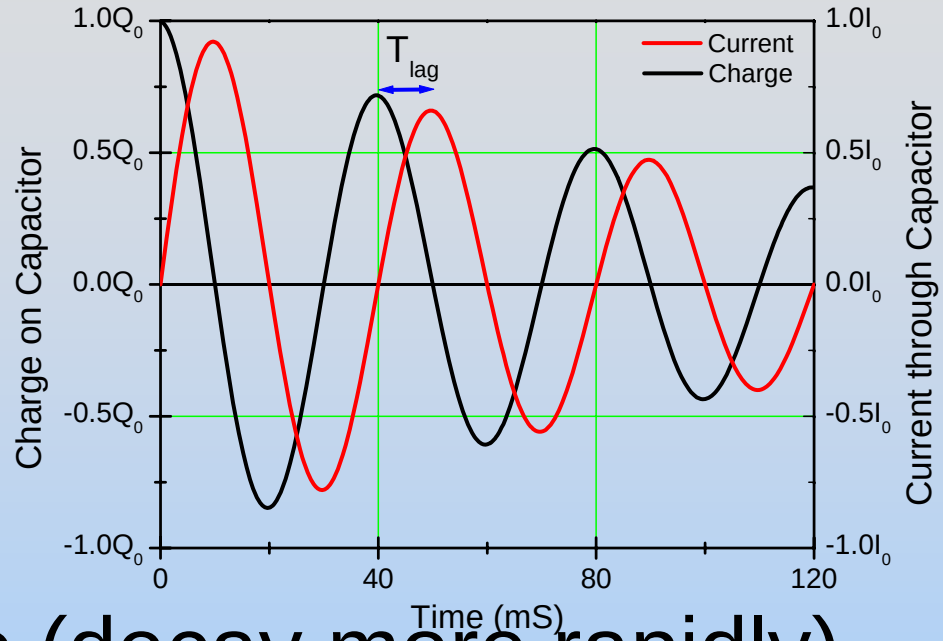
The plot shows the charge on a capacitor (black curve) and the current through it (red curve) after you turn off the power supply. If you put a core into the inductor what will happen to the time T_{Lag}?



1. It will increase
2. It will decrease
3. It will stay the same
4. I don't know

Concept Question: LC Circuit

If you increase the resistance in the circuit what will happen to rate of decay of the pictured amplitudes?



1. It will increase (decay more rapidly)
2. It will decrease (decay less rapidly)
3. It will stay the same
4. I don't know

8.02SC Physics II: Electricity and Magnetism

Fall 2010