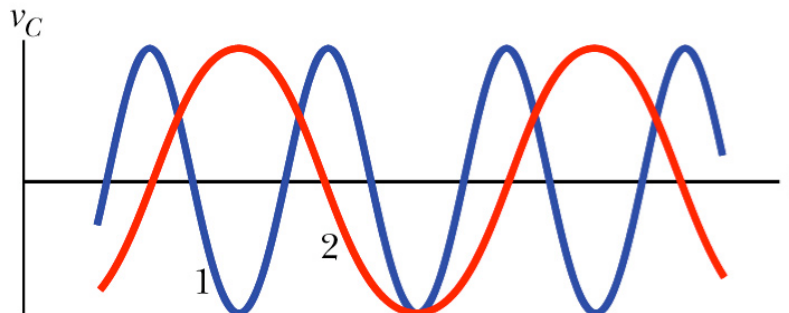**Activity 10, March 27, 2009**

A capacitor in an LC oscillator has a maximum potential difference of 17 V and a maximum energy of 160 µJ. At a time when the capacitor has a potential difference of 5.0 V and an energy of 10 µJ, what are:

(a) The emf across the inductor

(b) The energy stored in the magnetic field

Activity 11, March 27, 2009

The figure shows graphs of capacitor voltage $v_C(t)$ for two LC circuits, which contain identical capacitances and have the same maximum charge Q. Circle the right answers.

(a) Is the inductance L in circuit 1 **greater** than, **less** than, or **the same** as in circuit 2?

(b) Is the total energy in circuit 1 **greater** than, **less** than, or **the same** as in circuit 2?

(c) Is the maximum current I in circuit 1 **greater** than, **less** than, or **the same** as that in circuit 2?