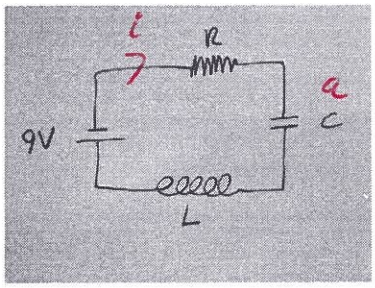
Name

$i = q'$

$V_R = iR \quad V_C = q/C \quad V_L = L i'$

- Write down ODE for the circuit.




$q + Rq' + q/C + Lq'' = 0$

**1.** Write down and solve the ODE for the circuit with the inductor replaced by a wire.

■ Solve $y' = 2y + e^t \quad y(0) = 1$

**2.** Solve $y' + 2ty = te^{-t^2}$