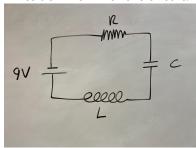
## Name

■ Write down ODE for the circuit.



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

■ Solve 
$$y' = 2y + e^t y(0) = 1$$

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