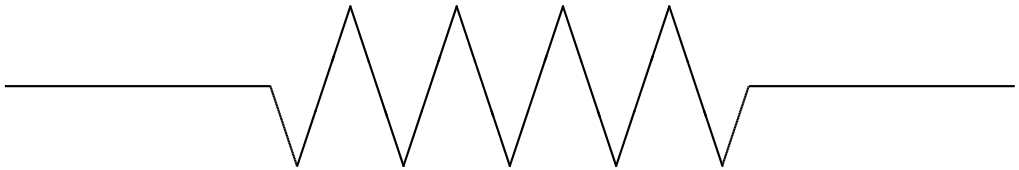
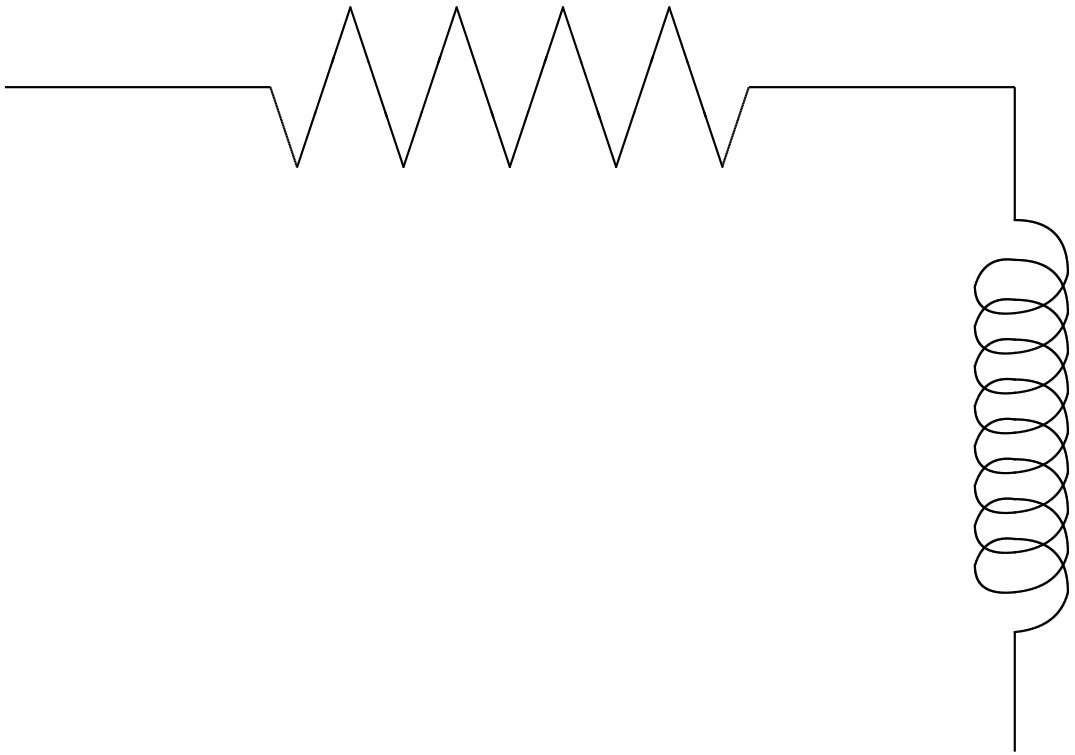
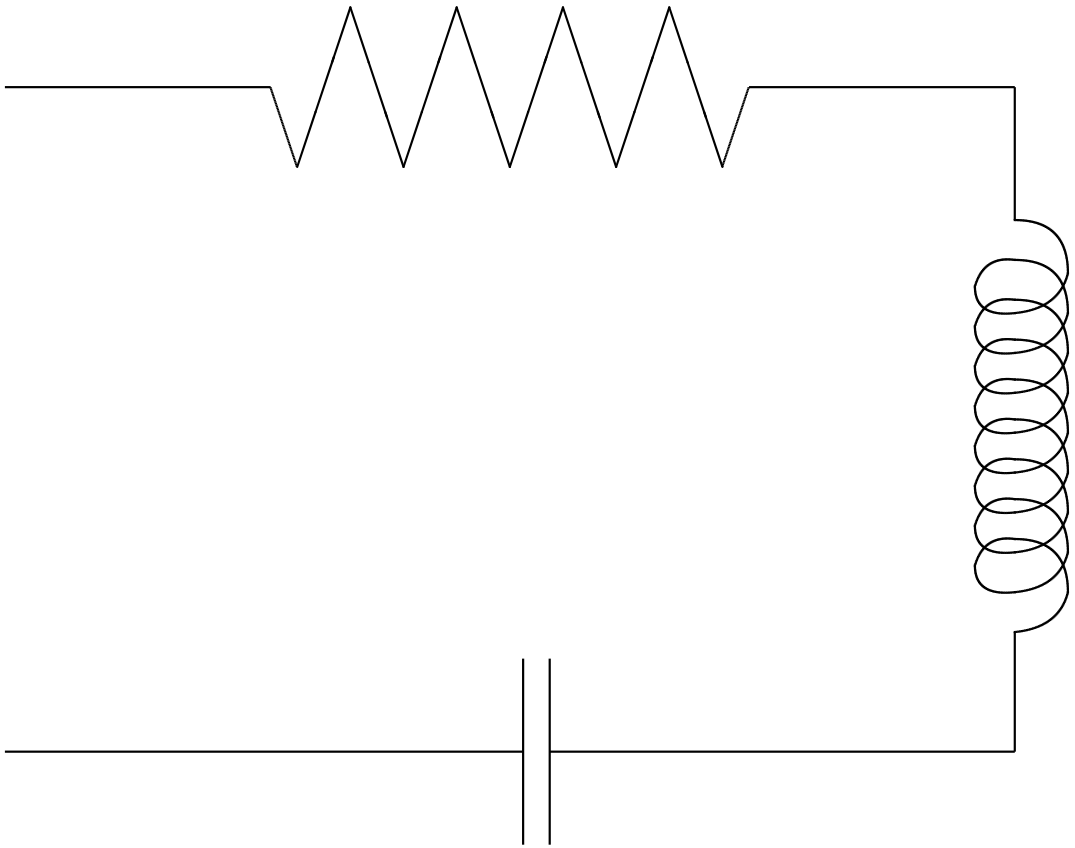
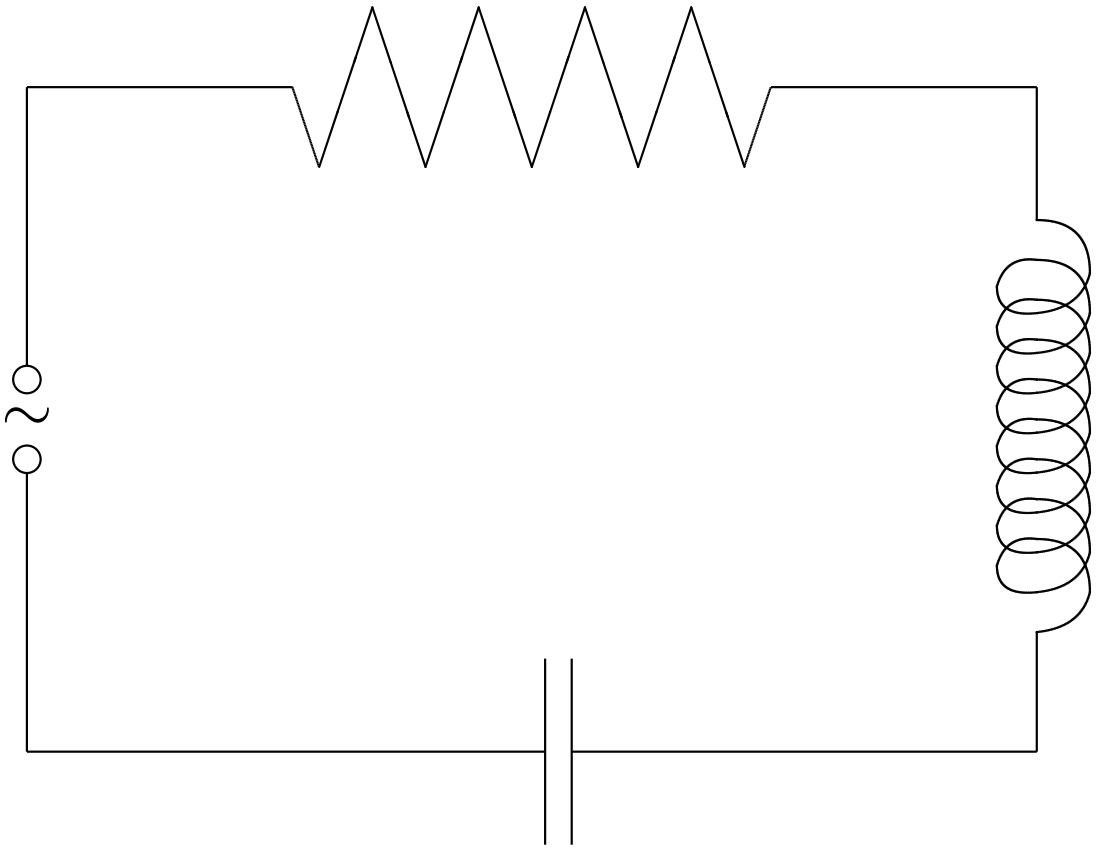
The Governing Equation of an LRC Series Circuit

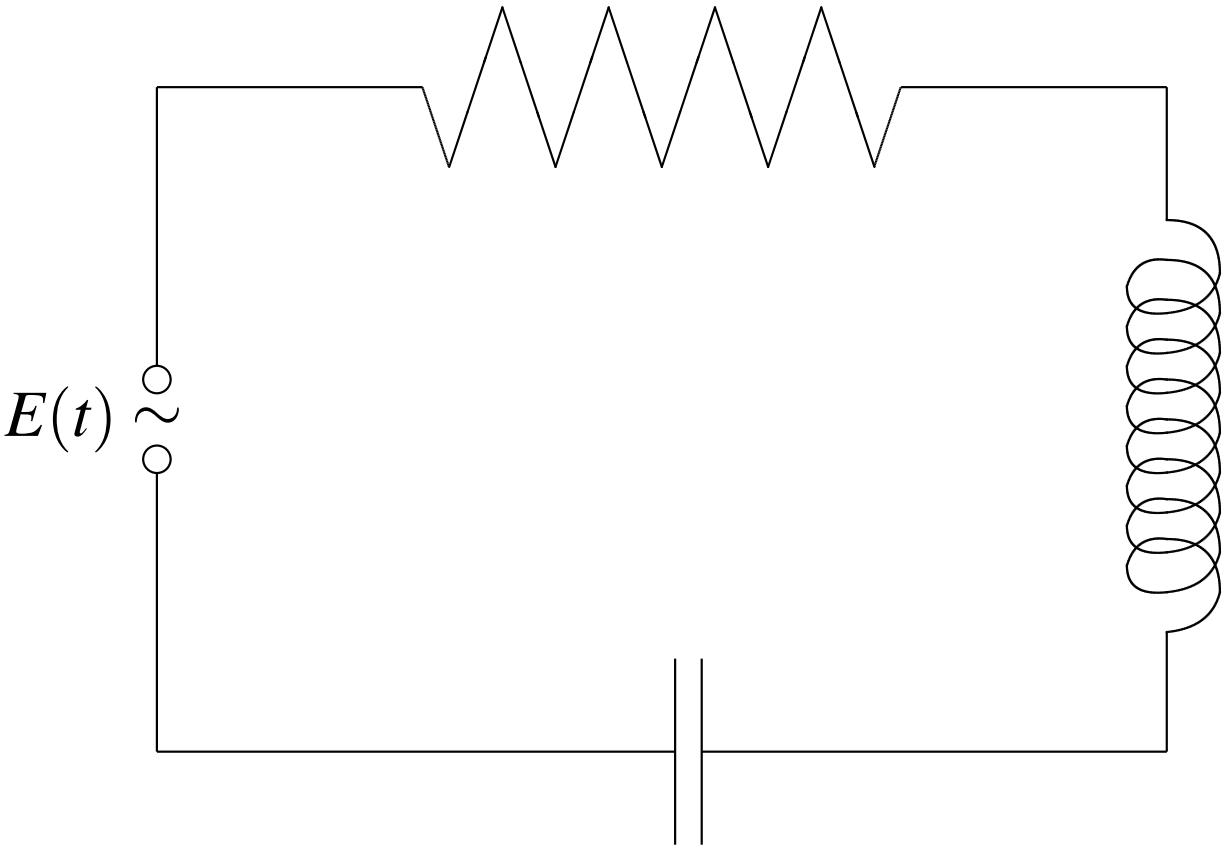
Bernd Schröder



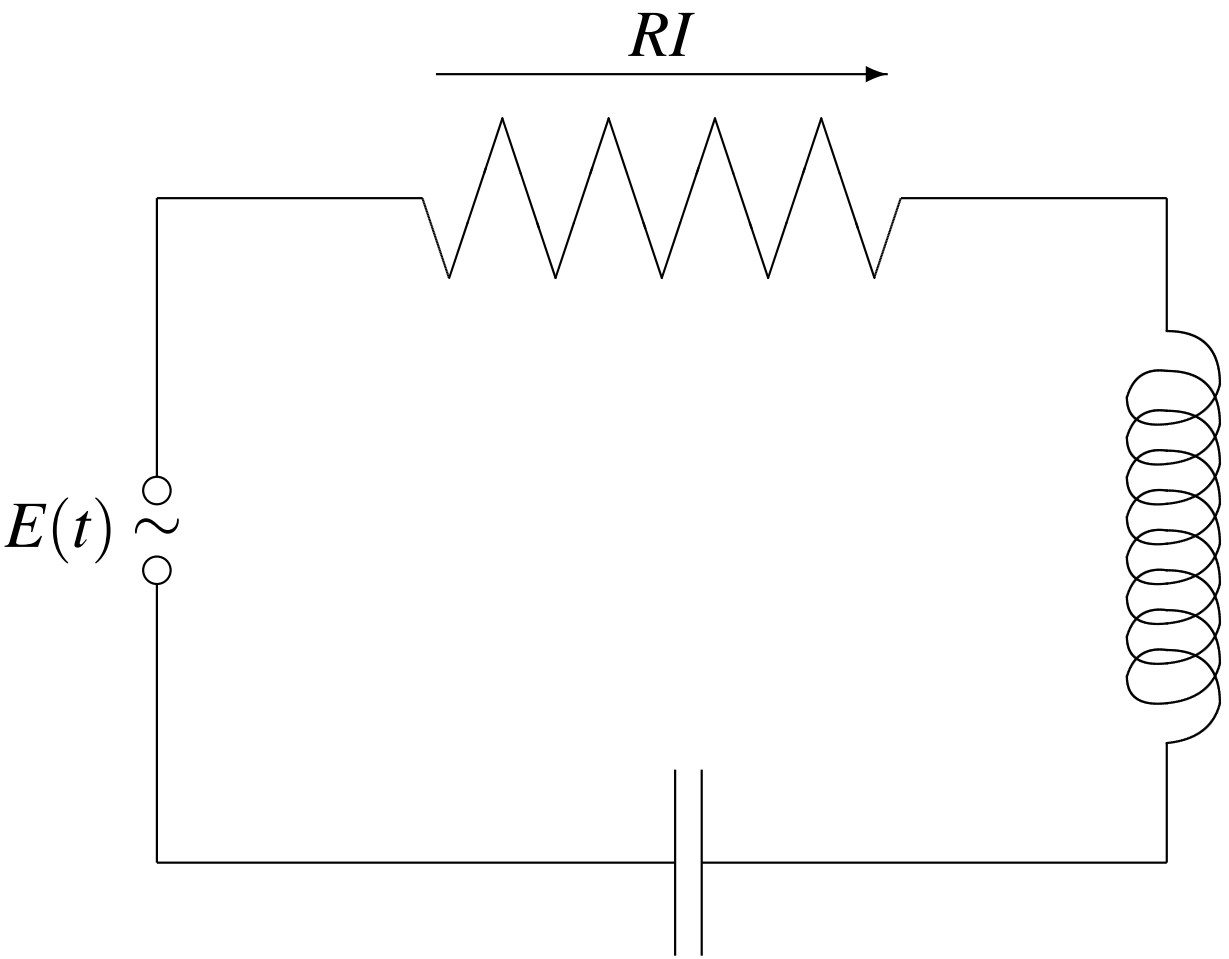




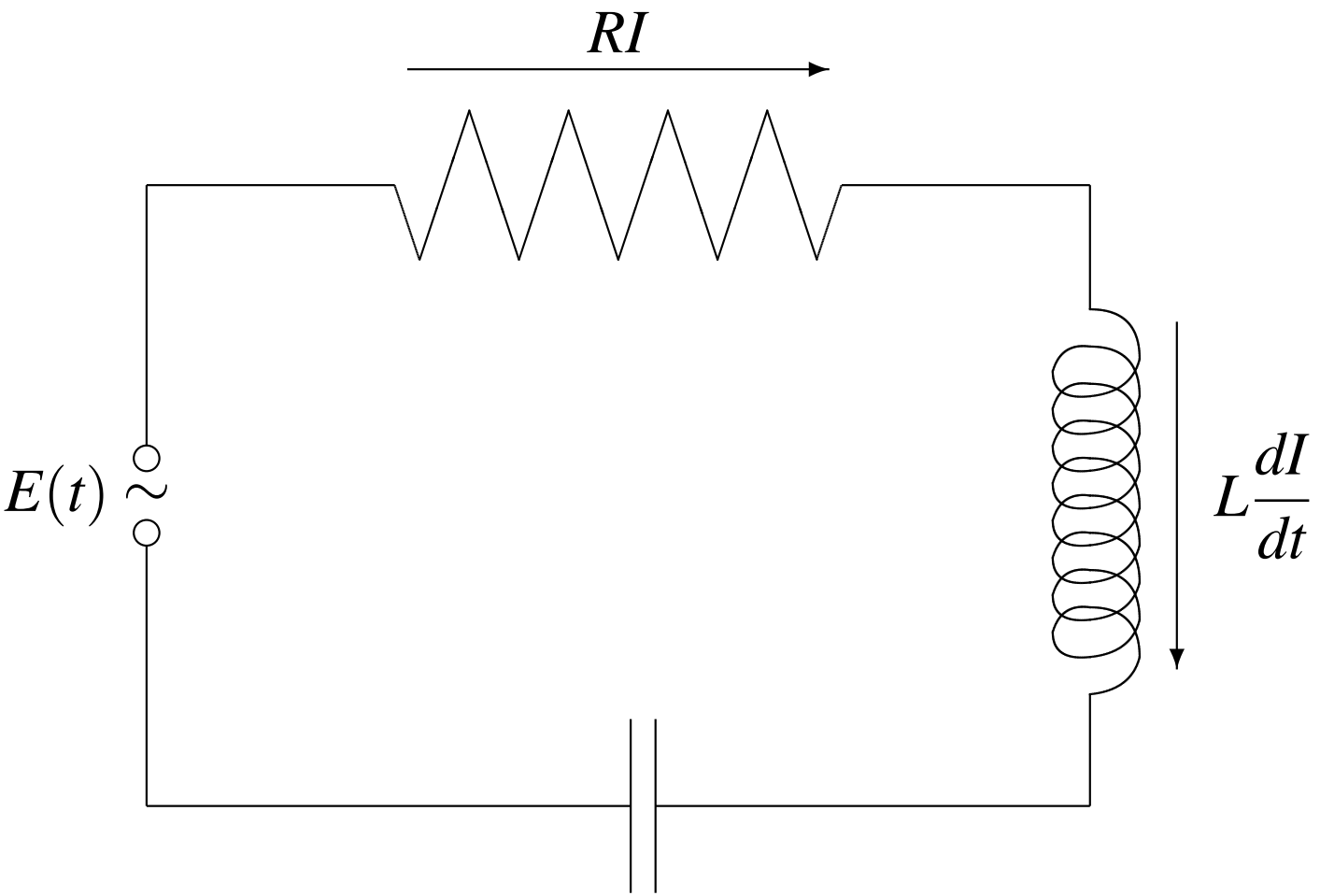




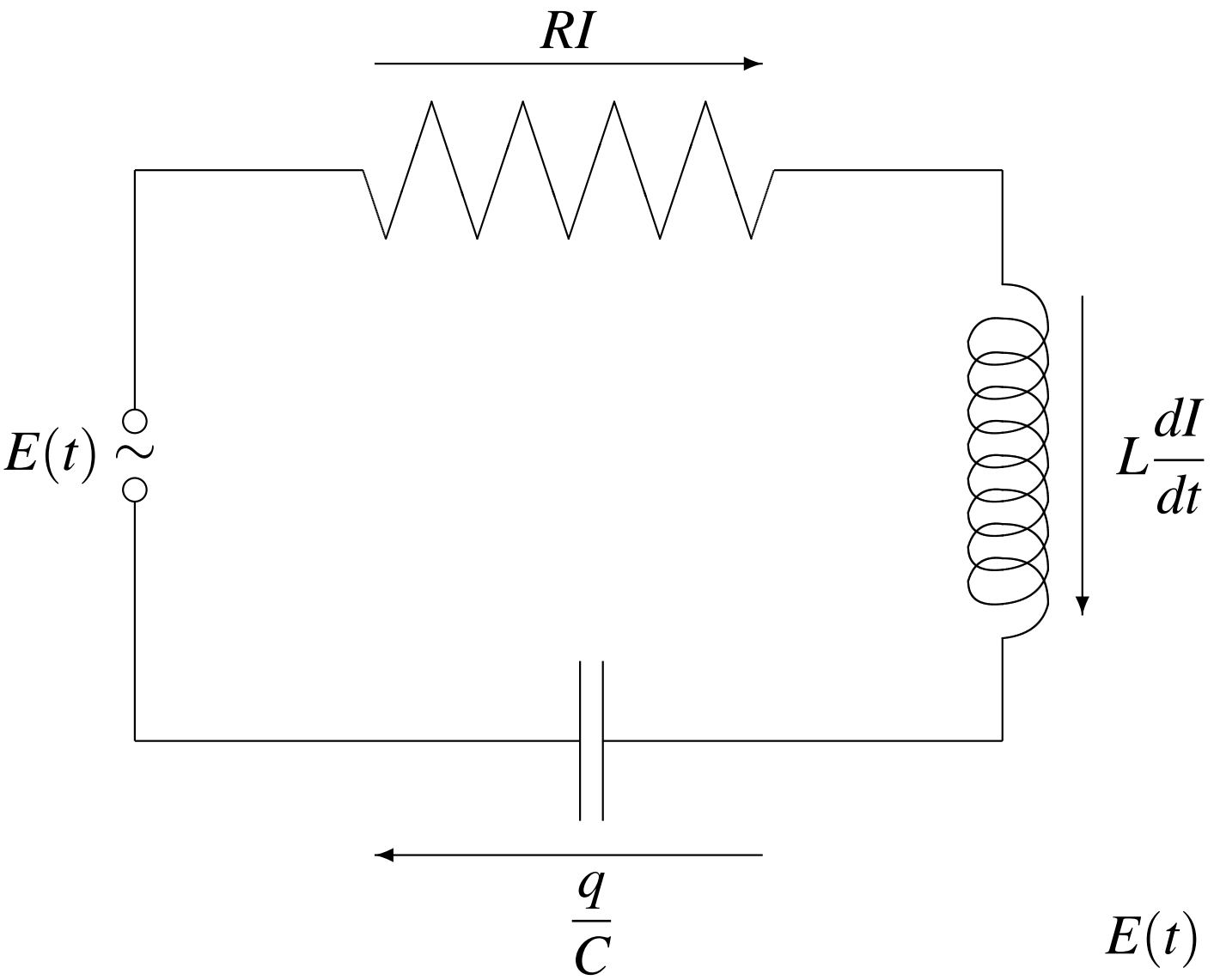
$$E(t) =$$



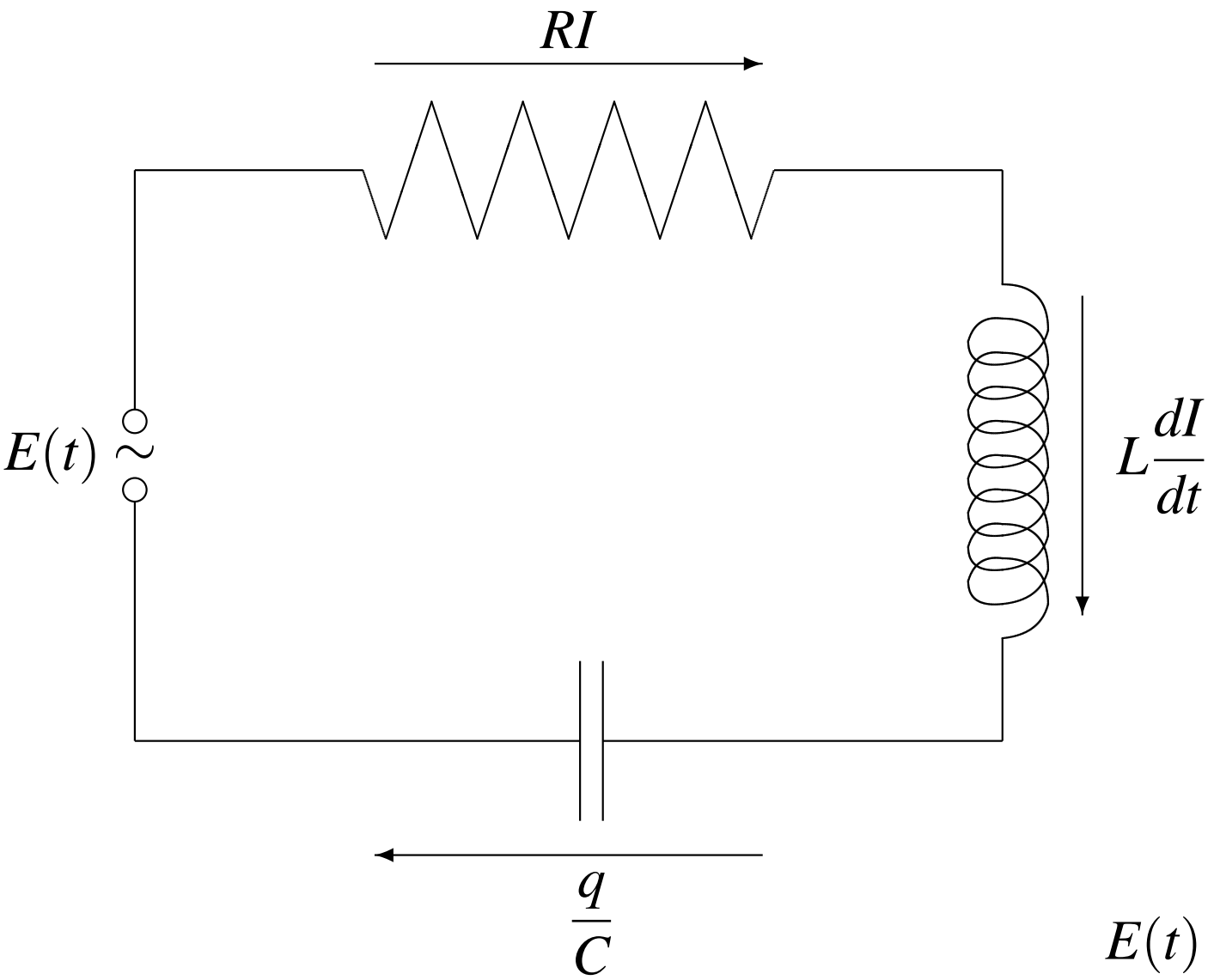
$$E(t) = RI$$



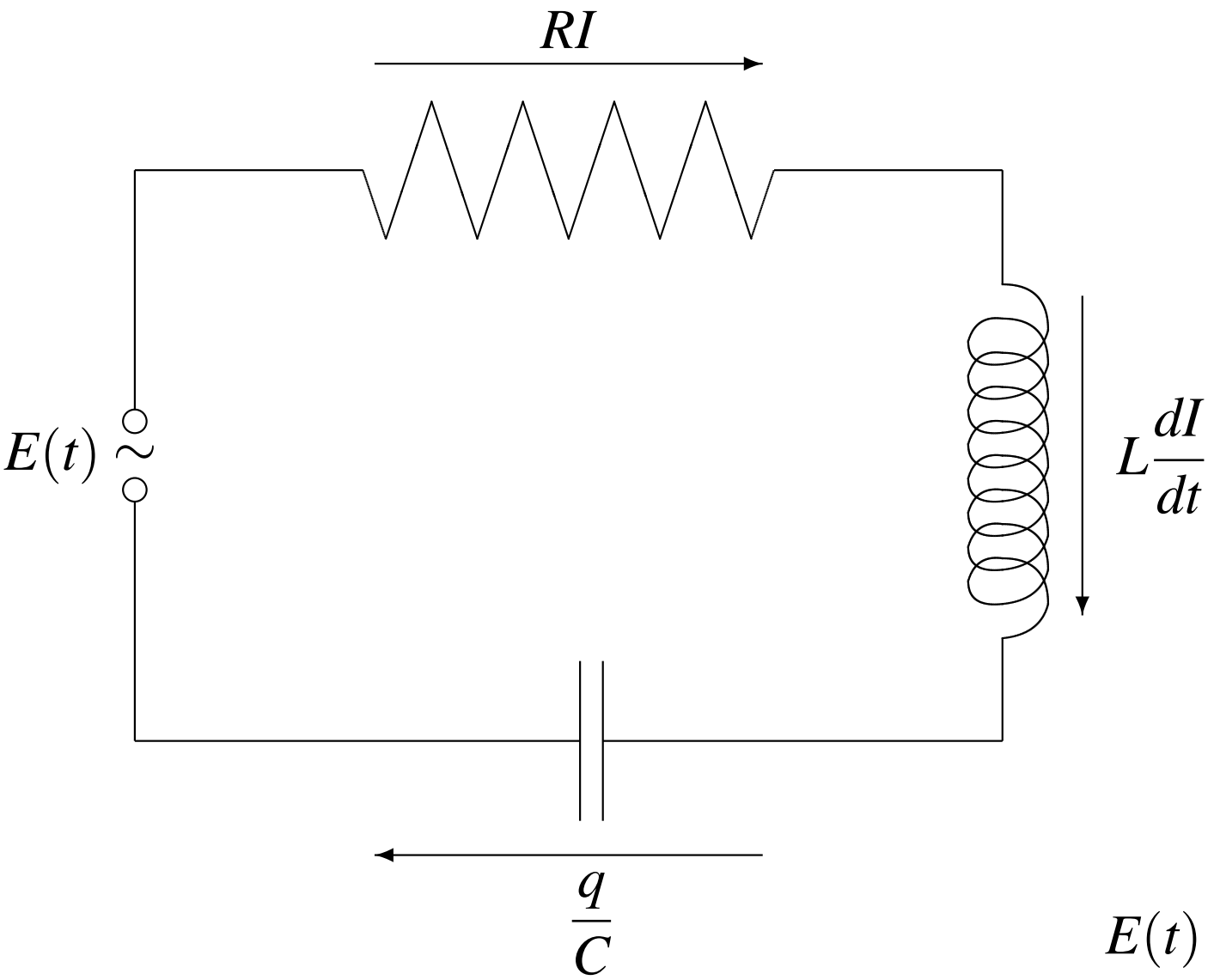
$$E(t) = L\frac{dI}{dt} + RI$$



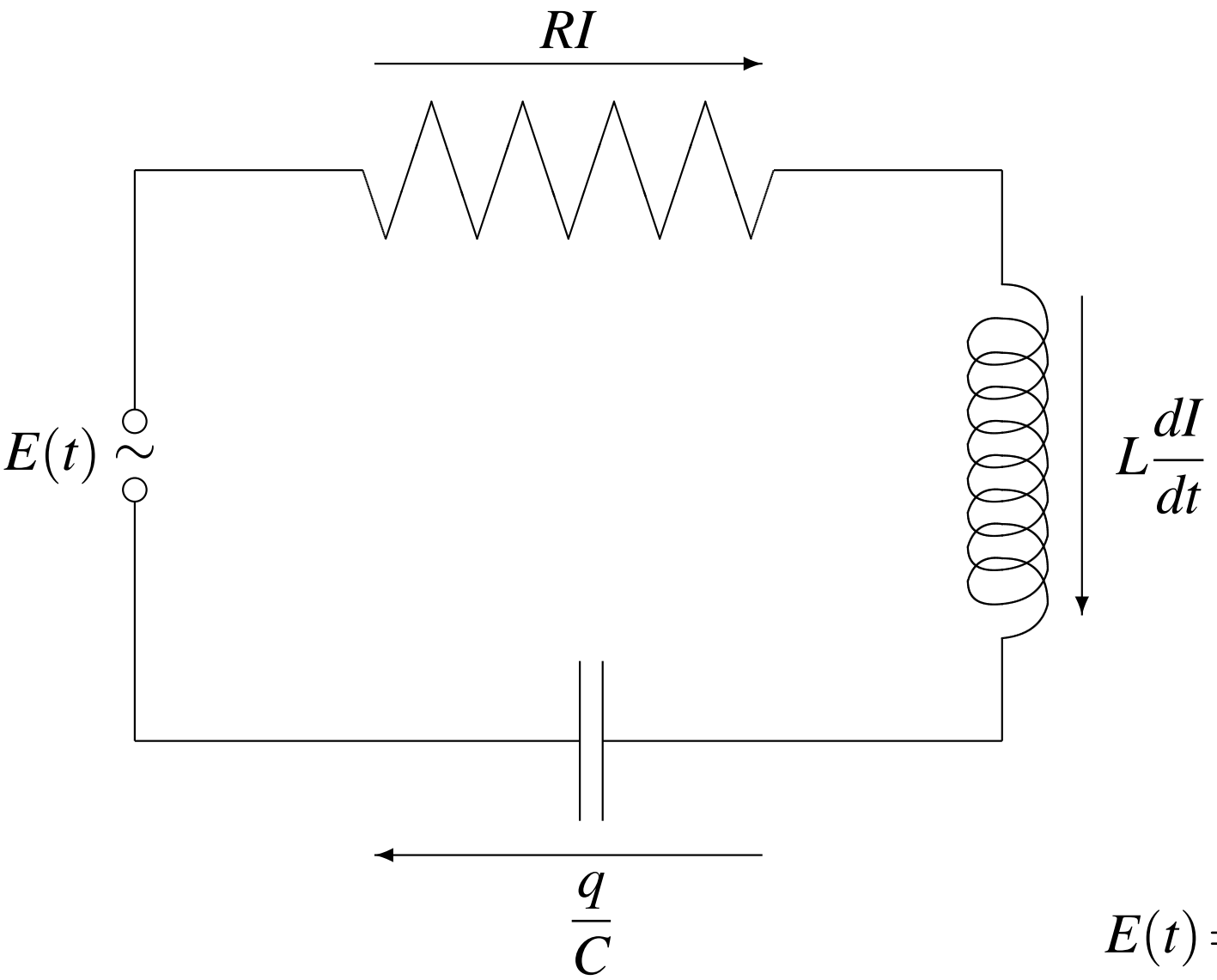
$$E(t) = L\frac{dI}{dt} + RI + \frac{q}{C}$$



$$E(t) = L\frac{d^2q}{dt^2} + R\frac{dq}{dt} + \frac{1}{C}q$$



$$E(t) = L\frac{dI}{dt} + RI + \frac{q}{C}$$



$$E(t) = L\frac{dI}{dt} + RI + \frac{1}{C}\int I dt$$