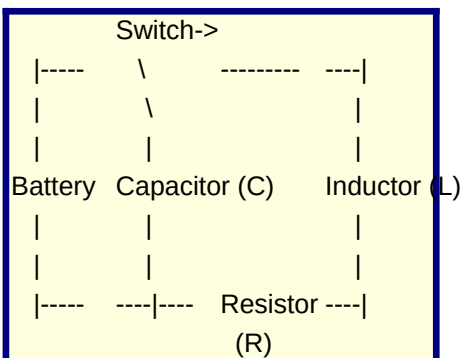


Example 6: Value of a resistor in an electrical circuit.

Find the value of a resistor in an electrical circuit which will dissipate the charge to 1 percent of its original value within one twentieth of a second after the switch is closed.



$q_0 = 9$ volts
 $q[t] = 0.09$ volts
 $t = 0.05$ seconds
 $L = 8$ henrys
 $C = 0.0001$ farads
 $R = 300$ ohms
 $q[t] = \text{Err:508}$

1/(L*C)	Err:508
(R/(2*L))^2	Err:508
SQRT(B15-B16)	Err:508
COS(T*B17)	Err:508
-R*T/(2*L)	Err:508
Q0*EXP(B19)	Err:508