Chapter 7, Problem 1.

In the circuit shown in Fig. 7.81
$$v(t)=56e^{-200t} \text{ V, } t>0$$
$$i(t)=8e^{-200t} \text{ mA, } t>0$$
(a) Find the values of R and C.
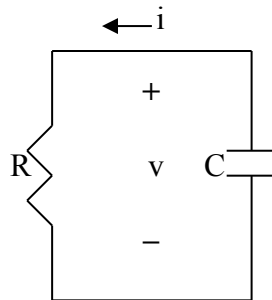(b) Calculate the time constant τ
(c) Determine the time required for the voltage to decay half its initial at t=0.

Figure 7.81
For Prob. 7.1.