1. The voltage $v_c(t)$ across a 55 μF capacitor is given in the following figure. Draw the current waveform through it.
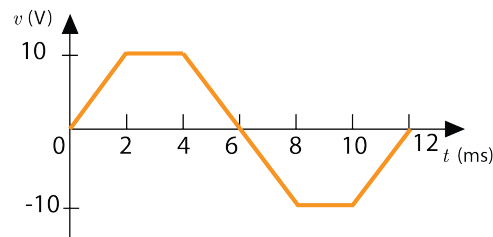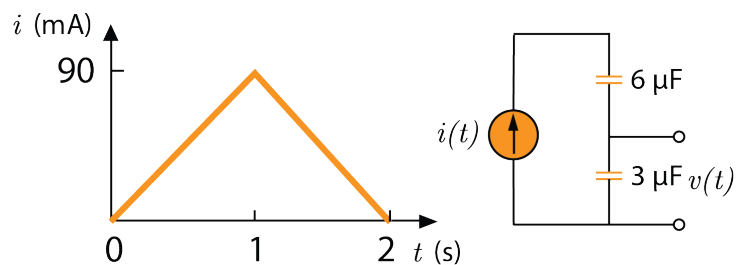

2. Determine the equivalent capacitance for the following three circuits.

(a)   (b)   (c)
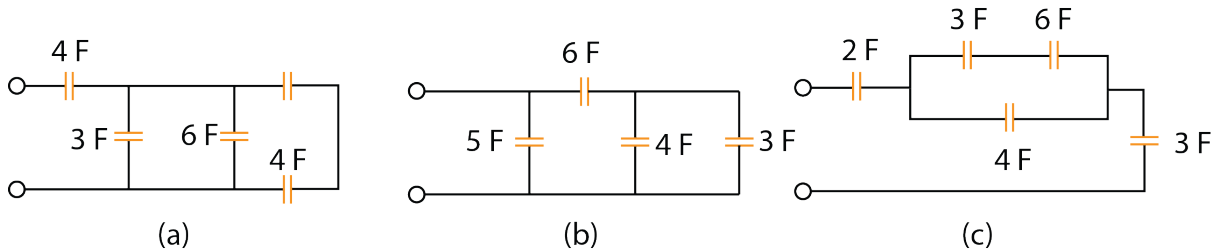
3. Assuming both capacitors are initially not charged, calculate the voltage $v(t)$ in the following circuit.

4. The switch in the following circuit has been in the initial position for a long time. Assume the switch moves instantaneously at $t = 0$. Calculate the voltage across the capacitor $v_c(t)$.
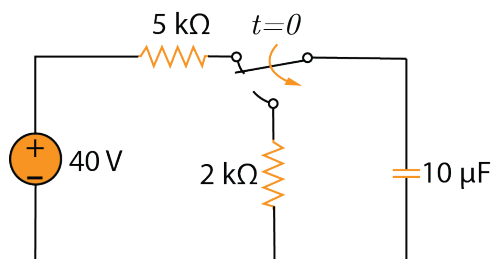
5. The switch in the following circuit has been in position A for a long time. Assume the switch moves instantaneously from A to B at $t = 0$. Calculate the voltage across the capacitor $v_c(t)$.