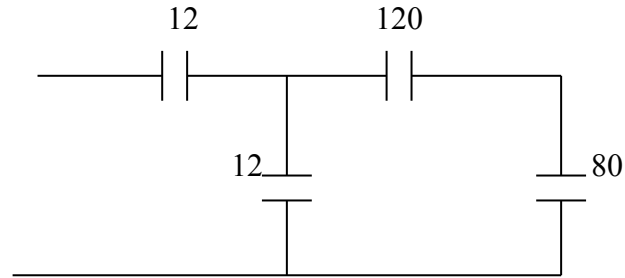


Chapter 6, Solution 19.

We combine 10-, 20-, and 30- μF capacitors in parallel to get 60 μF . The 60- μF capacitor in series with another 60- μF capacitor gives 30 μF .

$$30 + 50 = 80 \mu\text{F}, \quad 80 + 40 = 120 \mu\text{F}$$

The circuit is reduced to that shown below.



120- μF capacitor in series with 80 μF gives $(80 \times 120) / 200 = 48$

$$48 + 12 = 60$$

60- μF capacitor in series with 12 μF gives $(60 \times 12) / 72 = \mathbf{10 \mu\text{F}}$