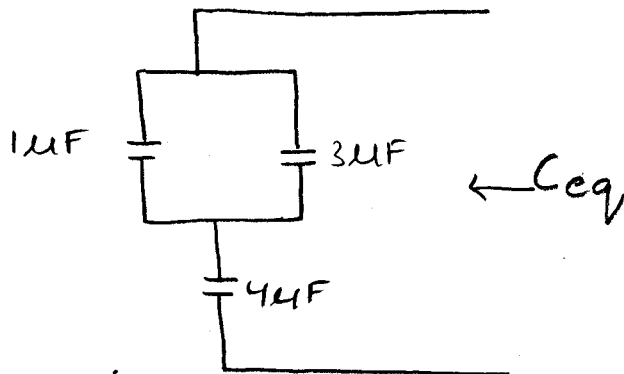


6.46 Given a 1-, 3-, and 4- μF capacitor, can they be interconnected to obtain an equivalent 2- μF capacitor?

SOLUTION:

Yes.



$$C_{eq} = \frac{(1 \times 10^{-6} + 3 \times 10^{-6})(4 \times 10^{-6})}{1 \times 10^{-6} + 3 \times 10^{-6} + 4 \times 10^{-6}}$$

$$C_{eq} = 2 \mu\text{F}$$