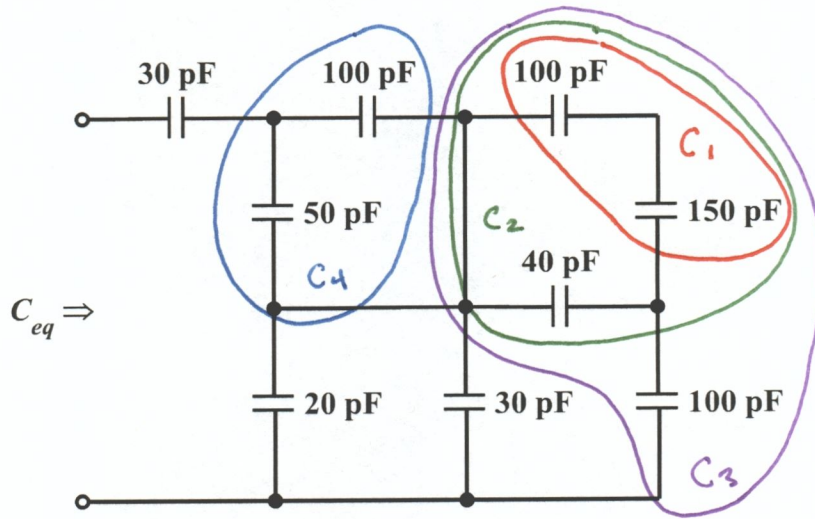


EE 2240
Problem #04

Find C_{eq} .



$$C_1 = \frac{1}{\frac{1}{100\text{pF}} + \frac{1}{150\text{pF}}} = 60\text{pF}$$

$$C_2 = C_1 + 40\text{pF} = 100\text{pF}$$

$$C_3 = \frac{1}{\frac{1}{C_2} + \frac{1}{100\text{pF}}} = 50\text{pF}$$

$$C_4 = 50\text{pF} + 100\text{pF} = 150\text{pF}$$

$$C_{eq} = \frac{1}{\frac{1}{30\text{pF}} + \frac{1}{C_4} + \frac{1}{20\text{pF} + 30\text{pF} + C_3}} = 20\text{pF}$$