P #34a

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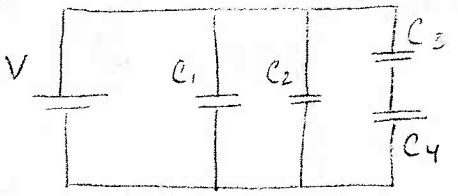
$C_1 = 4.0\,\mu F = 4.0 \times 10^{-6}\,F$
$C_2 = 2.0\,\mu F = 2.0 \times 10^{-6}\,F$
$C_3 = 24\,\mu F = 24 \times 10^{-6}\,F$
$C_4 = 8.0\,\mu F = 8.0 \times 10^{-6}\,F$

$V = 36\,V$



Find C_{eq} for C_3 and C_4 in series

$$\frac{1}{C_{34}} = \frac{1}{C_3} + \frac{1}{C_4}$$

$$C_{34}^{-1} = 24\mu F^{-1} + 8.0\mu F^{-1}$$

$$C_{34} = 6.0\,\mu F$$

Find C_{eq} for C_1, C_2, and C_{34} in parallel

$$C_{eq} = C_1 + C_2 + C_{34}$$
$$= 4.0\,\mu F + 2.0\,\mu F + 6.0\,\mu F$$

$$\boxed{C_{eq} = 12.0\,\mu F}$$