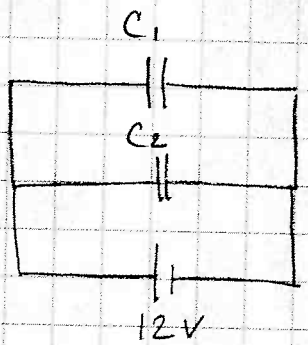
P # Q

Ch 16

a) $C_1 = 600\ \mu F$
$C_2 = 300\ \mu F$
$V_{eq} = 12\ V$



$C_{eq} = \Sigma C_i$ (parallel)

$C_{eq} = (600\ \mu F) + (300\ \mu F)$

$\boxed{C_{eq} = 900\ \mu F}$

b) For parallel, individual voltages equal V_{eq}

$\boxed{V_1 = V_2 = V_{eq} = 12\ V}$

c) $V_1 = V_2 = 12\ V$

For C_1: $C_1 = \frac{Q_1}{V_1}$ so $600\ \mu F = \frac{Q_1}{12\ V}$

$\boxed{Q_1 = 7200\ \mu C}$

For C_2: $C_2 = \frac{Q_2}{V_2}$ so $300\ \mu F = \frac{Q_2}{12\ V}$

$\boxed{Q_2 = 3600\ \mu C}$