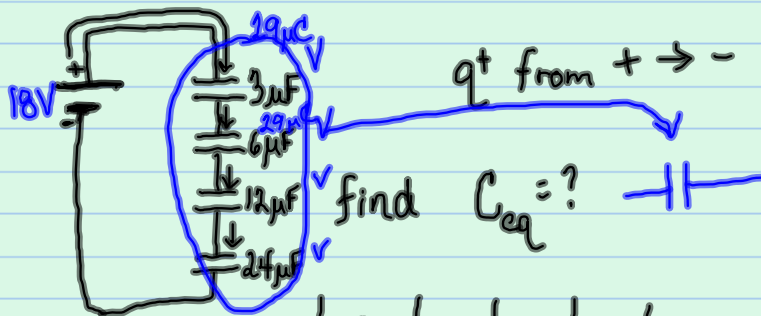


Ex 16.6 series rules Combined = total = equivalent

$$\frac{1}{C_{eq}} = \frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3} \dots$$

$$Q_1 = Q_2 = Q_3 \dots$$

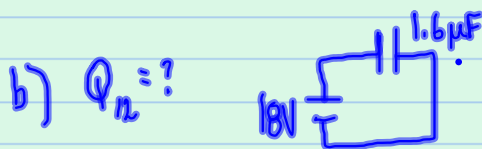
$$V_{total} = V_1 + V_2 + V_3 \dots$$



$$\frac{1}{C_{eq}} = \frac{1}{C_1} + \frac{1}{C_2} + \frac{1}{C_3} + \frac{1}{C_4}$$

$$\frac{1}{C_{eq}} = \frac{1}{3} + \frac{1}{6} + \frac{1}{12} + \frac{1}{24}$$

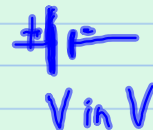
$$\frac{1}{C_{eq}} = \frac{5}{8} \quad \boxed{\times 11} \quad * \quad C_{eq} = \frac{8}{5} = 1.6 \mu F$$



$$C = \frac{Q}{V}$$

$$Q = CV = 1.6 \times 10^{-6} (18) = 29 \mu C$$

capacitors in a circuit



batteries, voltage source

