P #22

Ch 16 - pg 525

a) $V = 12.0\ V$
$C = 4.00\ \mu F = 4.00 \times 10^{-6}\ F$

$C = \frac{q}{V}$ so $4.00 \times 10^{-6}\ F = \frac{q}{12\ V}$

$$q = 4.8 \times 10^{-5}\ C$$

b) $C = 4.00 \times 10^{-6}\ F$
$V = 1.50\ V$

$C = \frac{q}{V}$ so $4.00 \times 10^{-6}\ F = \frac{q}{1.5\ V}$

$$q = 6.0 \times 10^{-6}\ C$$