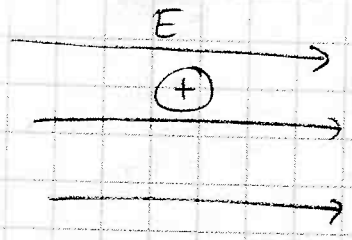
P #G

Ch 15

$q = +1.6 \times 10^{-19}\ C$

$E = 650\ N/C$

$m = 1.67 \times 10^{-27}\ kg$



a) $E = \frac{F}{q}$ so $650\ N/C = \frac{F}{1.6 \times 10^{-19}\ C}$

$F = 1.0 \times 10^{-16}\ N$ (right)

(E is right, which shows direction on a positive charge)

b) $F = m \cdot a$ so $(1.0 \times 10^{-16}\ N) = (1.67 \times 10^{-27}\ kg) \cdot a$

$a = 6.22 \times 10^{10}\ m/s^2$