

Ex  
15.4

$$F_e = ? \quad p^+ \quad E = 2 \times 10^4 \frac{N}{C}$$

$$E = \frac{F_e}{q_0}$$

$$F_e = E q_0 = 2 \times 10^4 (1.6 \times 10^{-19}) \\ = 3.2 \times 10^{-15} N$$

E electric  
field

$$E = \frac{F}{q_0} \quad \frac{N}{C}$$

$q_0$  test charge  
 $+q$  C

$$F = \frac{k q_1 q_0}{r^2} \quad N$$

$$E = \frac{F}{q_0} = \frac{k q_1 q_0}{r^2} \frac{1}{q_0}$$

$$E = \frac{k q_1}{r^2}$$

$$F_g = mg$$

$$F = ma$$

$$F_f = \mu F_n$$

$$F_e = \frac{k q_1 q_2}{r^2}$$