

Ex 17.1

See review on  
slide 2

$$t = 2 \text{ s}$$

$$Q = 1.67 \text{ C}$$

a)  $I = ?$

b)  $\frac{e^-}{1 \text{ s}}$

a)  $I = \frac{Q}{t} = \frac{1.67 \text{ C}}{2 \text{ s}} = 0.84 \text{ A}$

b)  $\frac{.84 \cancel{\text{A}}}{\text{s}} \left| \frac{1 \text{ e}^-}{1.6 \times 10^{-19} \cancel{\text{C}}} \right.$   
 $= 5.25 \times 10^{-18} \text{ e}^- \text{ s}$

$$q_e = 1.6 \times 10^{-19} \frac{\text{C}}{1 \text{ e}^-}$$

$$I = \frac{Q}{t} \left[ \frac{\text{C}}{\text{s}} \right]$$

I (amps - A)

Q (Coulombs - C)

$$A = \frac{\text{Coulomb}}{\text{s}}$$

$$e^- \quad \rho^+$$

variable	unit
$F$	$N$
$E = \frac{F}{q}$	$\frac{N}{C}$
$V = \frac{U}{q}$	$\frac{J}{C}$
$C = \frac{Q}{V}$	$F = \frac{C}{V}$
$I = \frac{Q}{t}$	$A = \frac{C}{s}$