

## Tressfysikk – Løsning oppgave 12.339

a)  $U = 9,0 \text{ V}$ ,  $P = 7,0 \text{ W}$ ,  $t = 17 \text{ h} = 17 \cdot 60 \cdot 60 = 61200 \text{ s}$   
 $E = P \cdot t = 7,0 \cdot 61200 = 428400 \text{ J}$   
 $Q = E / U = 428400 / 9,0 = 47600 \text{ C}$

b)  $U = 80 \text{ kV}$ ,  $I = 5,0 \text{ mA}$   
 $P = U \cdot I = 80 \cdot 10^3 \cdot 5,0 \cdot 10^{-3} = 400 \text{ [W]}$

c)  $I = 4,0 \text{ A}$ ,  $U = 12 \text{ V}$ ,  $\eta = 75\%$   
 $P = (I \cdot U) / 0,75 = (4,0 \cdot 12) / 0,75 = 64 \text{ W}$