

Vraag 1

Geg:

$$U = 210 \text{ V} \quad I = 12 \text{ A} \quad t = 6.4 \text{ h}$$

$$1 \text{ kwh} = \text{€ } 0.60$$

Gev:

Energiekosten per week

Form:

$$P = U \times I$$

$$E = P \times t$$

Inv:

$$P = 210 \times 12 = 2520 \text{ W} \quad (P = U \times I)$$

$$P = 2520 \text{ W} \rightarrow 2.52 \text{ Kw} \quad (/1000)$$

$$E = 2.52 \times 6.4 = 16.13 \text{ kwh per dag} \quad (E = P \times t)$$

$$E = 16.13 \times 7 = 112,91 \text{ kwh per week}$$

$$\text{Energiekosten: } 112,91 \times \text{€ } 0.60 = \underline{\underline{\text{€ } 67.75}}$$

Vraag 2

Geg:

TV: $P = 0.12 \text{ Kw}$ $t = 4 \text{ h per dag}$

Vaatwasser: $P = 2.0 \text{ Kw}$ $t = 52 \text{ min per dag}$

Föhn $P = 75 \text{ W}$ $t = 35 \text{ min per dag}$

$1 \text{ kwh} = € 0.56$

Gev:

Energiekosten per week

Form:

$$E = P \times t$$

Inv:

Tv:

$$E = 0.12 \times 4 = 0.48 \text{ kwh per dag} \quad (E = P \times t)$$

$$E = 0.48 \times 7 = \underline{3.36 \text{ kwh per week}}$$

Waatwasser:

$$t = 52 \text{ min} \rightarrow 0.87 \text{ h} \quad (/60)$$

$$E = 2 \times 0.87 = 1.74 \text{ kwh per dag} \quad (E = P \times t)$$

$$E = 1.74 \times 7 = \underline{12,18 \text{ kwh per week}}$$

(zie volgende blz.)

Föhn:

$$t = 35 \text{ min} \rightarrow 0.58 \text{ h} \quad (/60)$$

$$P = 75 \text{ W} \rightarrow 0.075 \text{ Kw} \quad (/1000)$$

$$E = 0.075 \times 0.58 = 0.044 \text{ kwh per dag}$$

$$E = 0.044 \times 7 = \underline{0.308 \text{ kwh per week}}$$

$$\text{Totale energie: } 3.36 + 12.18 + 0.308 = \underline{15.85 \text{ kwh}}$$

$$\underline{\text{Totale energiekosten: } 15.85 \times \text{€ } 0.56 = \underline{\text{€ 8.87}}}$$

Vraag 3

Geg:

$$U = 12 \text{ V} \quad I = 2.8 \text{ A} \quad t = 2.4 \text{ h}$$

$$1 \text{ kwh} = \text{€ } 0.89$$

Gev:

Energiekosten per dag

Form:

$$P = U \times I$$

$$E = P \times t$$

Inv:

$$P = 12 \times 2.8 = 33.6 \text{ W} \quad (P = U \times I)$$

$$P = 33.6 \text{ W} \rightarrow 0.034 \text{ Kw} \quad (/1000)$$

$$E = 0.034 \times 2.4 = 0.082 \text{ kwh per dag} \quad (E = P \times t)$$

$$\text{Energiekosten: } 0.082 \times \text{€ } 0.89 = \underline{\underline{\text{€ } 0.07}}$$