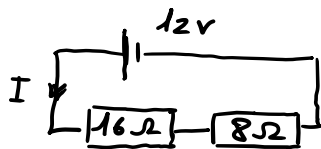


10.24



(a).  $\Delta u = R \cdot I = 16 \cdot 0,5 = \underline{8V}$

(b).  $\Delta u = 8 \cdot 0,5 = \underline{4V}$

Calcul de I:  $I = \frac{U}{R_{\text{totale}}} = \frac{12}{16+8} = 0,5A$

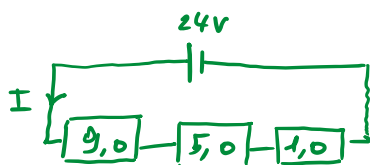
10.25 initialement,  $I = \frac{U}{R_i} = 15,0A$  (1)

Avec la résistance en plus:  $I = \frac{U}{R_i+8} = 12,0A$  (2)

(1)  $\Rightarrow \frac{U}{R_i} \cdot \frac{R_i+8}{U} = \frac{15}{12} = \frac{5}{4} \Rightarrow 4(R_i+8) = 5R_i$

$\Rightarrow 4R_i+32 = 5R_i \Rightarrow 32 = R_i \quad \underline{R_i=32\Omega}$

10.26



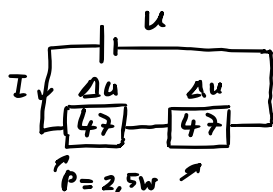
$I = \frac{U}{R_{\text{total}}} = \frac{24}{15} = 1,6A$

(a).  $I = 1,6A$   $\Delta u = R \cdot I = 9 \cdot 1,6 = \underline{14,4V}$   $P = RI^2 = 9 \cdot 1,6^2 = \underline{23W}$

(b).  $I = 1,6A$   $\Delta u = R \cdot I = 5 \cdot 1,6 = \underline{8V}$   $P = RI^2 = 5 \cdot 1,6^2 = \underline{12,8W}$

(c).  $I = 1,6A$   $\Delta u = R \cdot I = 1 \cdot 1,6 = \underline{1,6V}$   $P = RI^2 = 1 \cdot 1,6^2 \approx \underline{2,6W}$

10.27



$P = \frac{\Delta u^2}{R} = \frac{\Delta u^2}{47} = 2,5 \Rightarrow \Delta u = \sqrt{2,5 \cdot 47}$

$U = 2 \cdot \Delta u = 2 \cdot \sqrt{2,5 \cdot 47} \approx \underline{22V}$