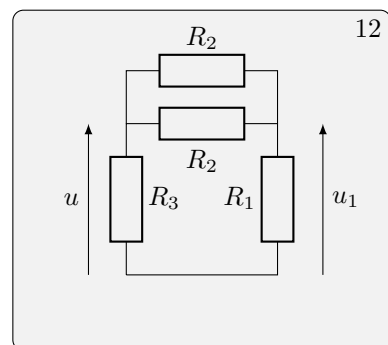
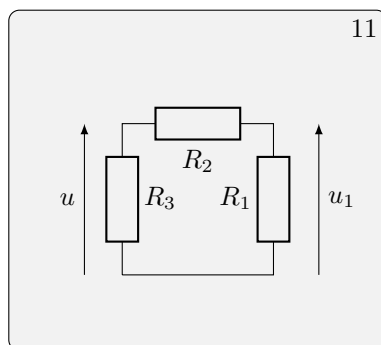
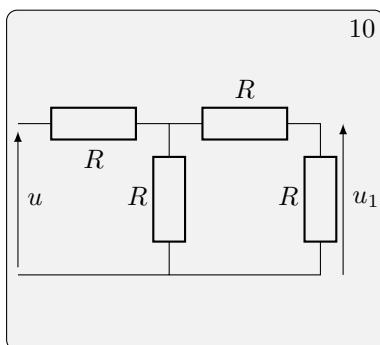
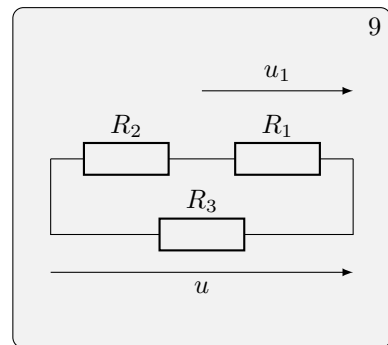
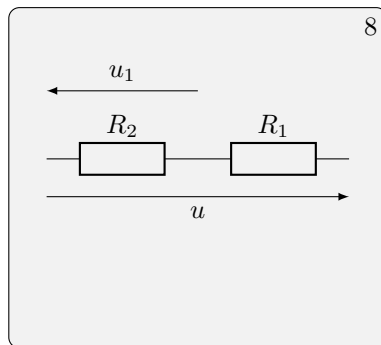
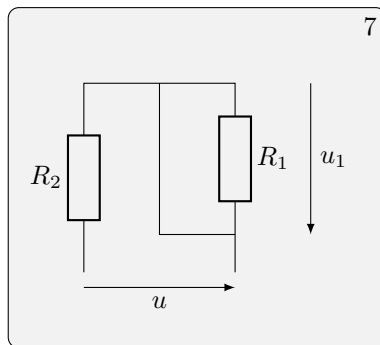
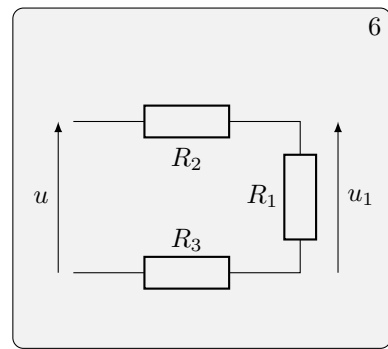
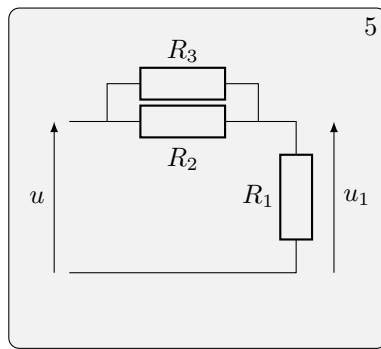
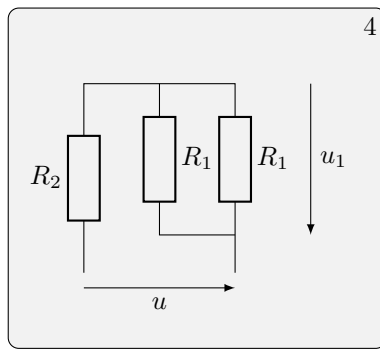
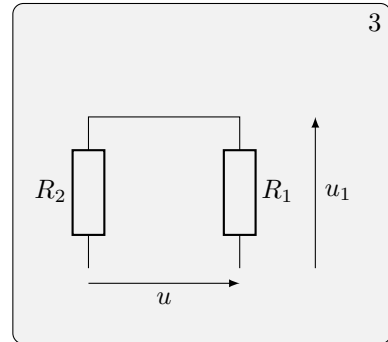
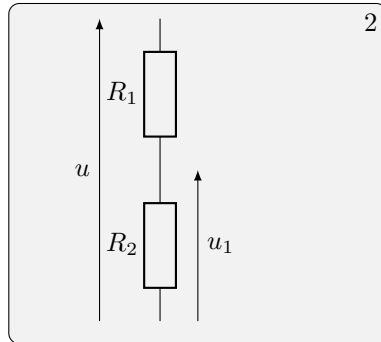
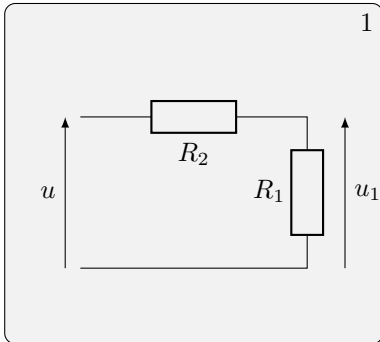


Entraînement technique : Ponts diviseurs

1 Ponts diviseurs de tension

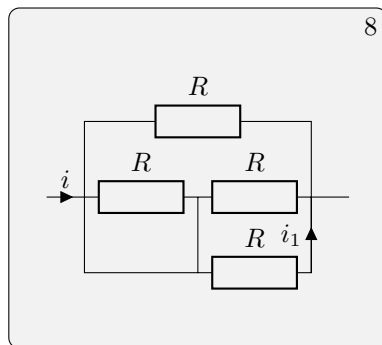
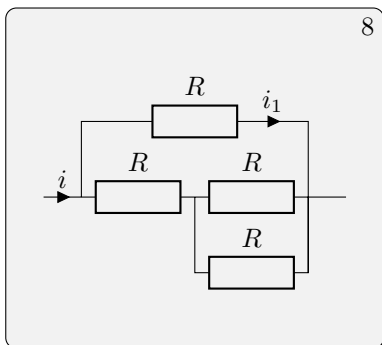
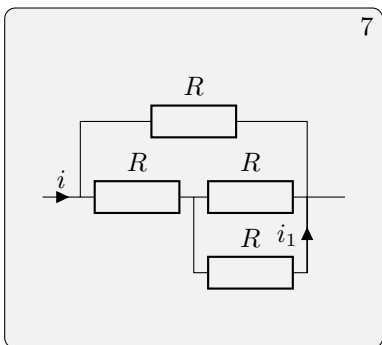
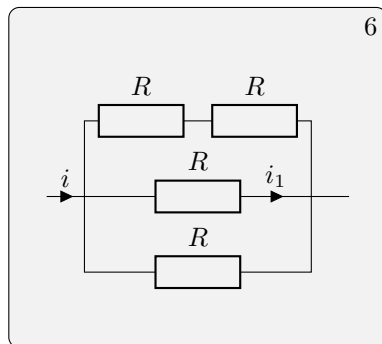
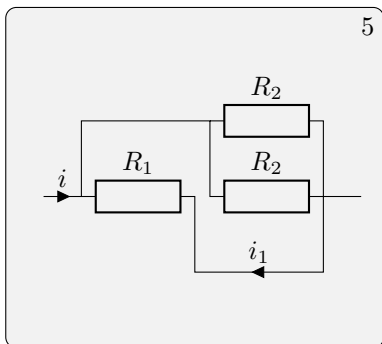
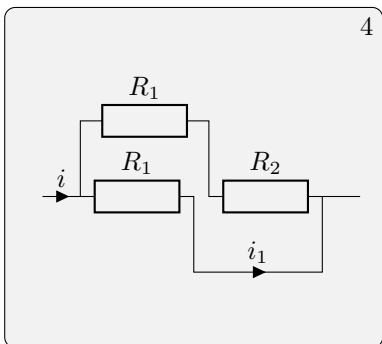
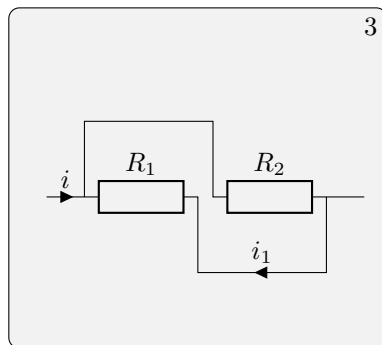
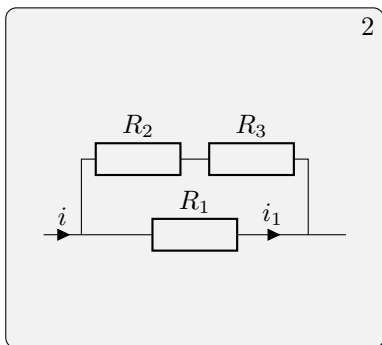
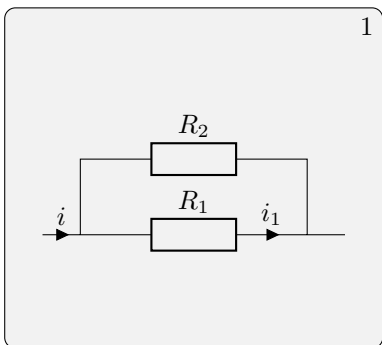
En utilisant uniquement des ponts diviseurs de tension (et résistances équivalentes), donner l'expression de la tension u_1 en fonction de u et des résistances indiquées sur le circuit.



$$\begin{aligned}
 1. \quad u_1 &= \frac{R_1}{R_1+R_2}u & 2. \quad u_1 &= \frac{R_2}{R_1+R_2}u & 3. \quad u_1 &= -\frac{R_1}{R_1+R_2}u & 4. \quad u_1 &= -\frac{R_1}{R_1+2R_2}u & 5. \quad u_1 &= \frac{R_1(R_2+R_3)}{R_1R_2+R_1R_3+R_3R_2}u \\
 6. \quad u_1 &= \frac{R_1}{R_1+R_2+R_3}u & 7. \quad u_1 &= 0 & 8. \quad u_1 &= -\frac{R_2}{R_1+R_2}u & 9. \quad u_1 &= \frac{R_1}{R_1+R_2}u & 10. \quad u_1 &= \frac{1}{5}u & 11. \quad u_1 &= \frac{R_1}{R_1+R_2}u \\
 12. \quad u_1 &= \frac{R_1(R_2+R_3)}{R_1R_2+R_1R_3+R_3R_2}u
 \end{aligned}$$

2 Ponts diviseurs de courant

En utilisant uniquement des ponts diviseurs de courant (et résistances équivalentes), donner l'expression de l'intensité i_1 en fonction de i et des résistances indiquées sur le circuit.



1. $i_1 = \frac{R_2}{R_1+R_2}i$ 2. $i_1 = \frac{R_2+R_3}{R_1+R_2+R_3}i$ 3. $i_1 = -\frac{R_2}{R_1+R_2}i$ 4. $i_1 = \frac{R_1+R_2}{2R_1+R_2}i$ 5. $i_1 = -\frac{R_2}{2R_1+R_2}i$ 6. $i_1 = \frac{2}{5}i$
 7. $i_1 = \frac{1}{5}i$ 8. $i_1 = \frac{3}{5}i$ 9. $i_1 = \frac{1}{3}i$