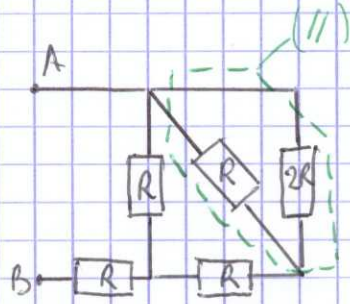
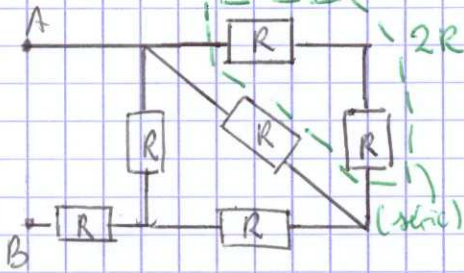


Exercices entraînement EC1

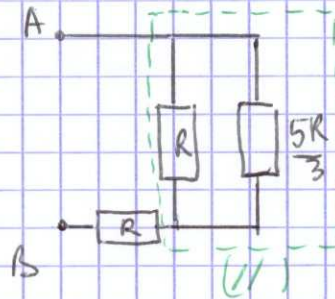
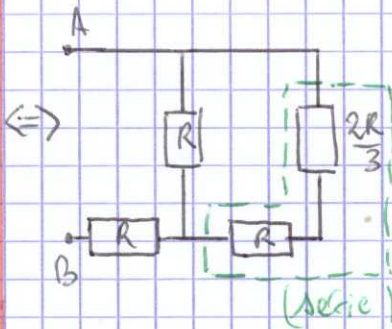
Exercise 1

Méthode : utiliser les lois d'association de résistances et procéder par équivalences successives.

Premier circuit

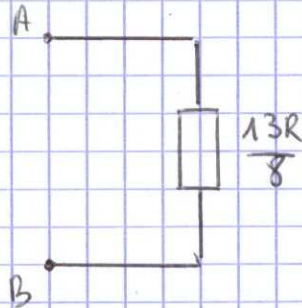
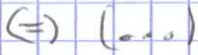


$$\frac{1}{R_{eq}} = \frac{1}{R} + \frac{1}{2R} = \frac{3}{2R}$$
$$\Rightarrow R_{eq} = \frac{2R}{3}$$

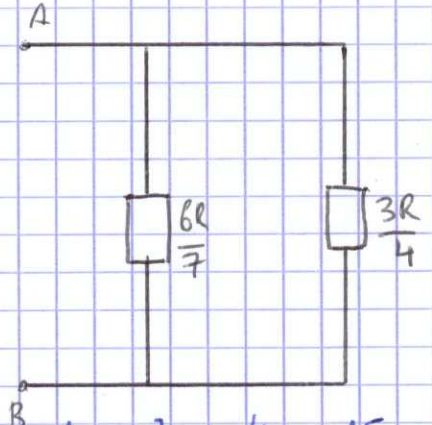
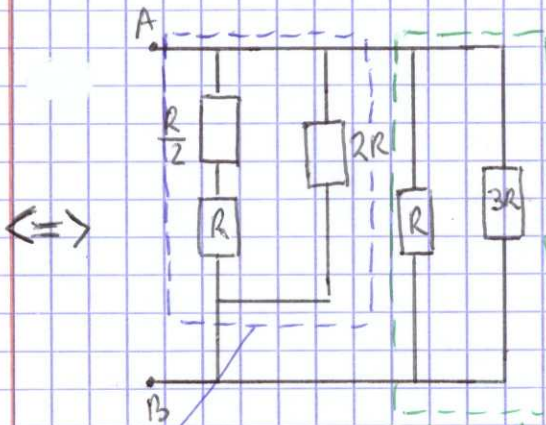


$$\frac{1}{R_{eq}} = \frac{1}{R} + \frac{3}{5R} = \frac{8}{5R}$$

$$\Rightarrow R_{eq} = \frac{5R}{8}$$



Deuxième circuit (conception moins détaillée)



$$\frac{1}{R_{eq}} = \frac{7}{6R} + \frac{4}{3R} = \frac{15}{6R}$$

$$\Leftrightarrow R_{eq} = \frac{6R}{15}$$

$$\frac{1}{R_{eq}} = \frac{1}{2R} + \frac{1}{3R/2}$$

$$\Rightarrow \frac{1}{R_{eq}} = \frac{7}{6R} \quad \Rightarrow R_{eq} = \frac{6R}{7}$$

$$\frac{1}{R_{eq}} = \frac{1}{R} + \frac{1}{3R}$$
$$\Rightarrow R_{eq} = \frac{3R}{4}$$