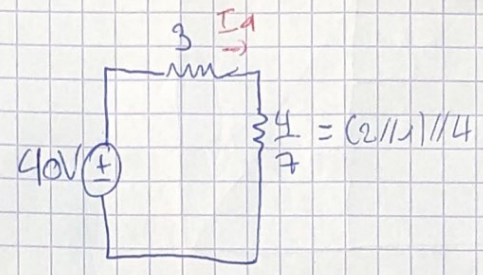
exo sur les réci

1)



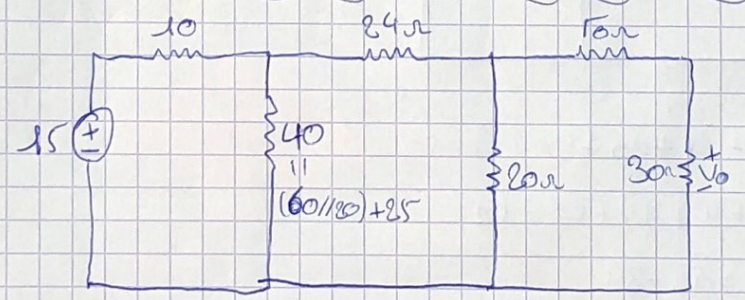
V aux bornes de $\frac{4}{7} = \frac{40 \cdot \frac{4}{7}}{3+\frac{4}{7}} = 6{,}4V$

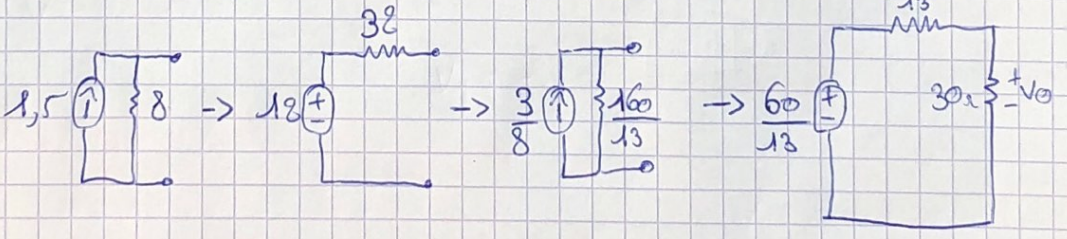
$I_5 = \frac{6{,}4}{2} = \boxed{3{,}2A}$

2) $R_{eq} = ((40//40) + 8 + 20)//40 + 20$

$R_{eq} = \boxed{40\Omega}$

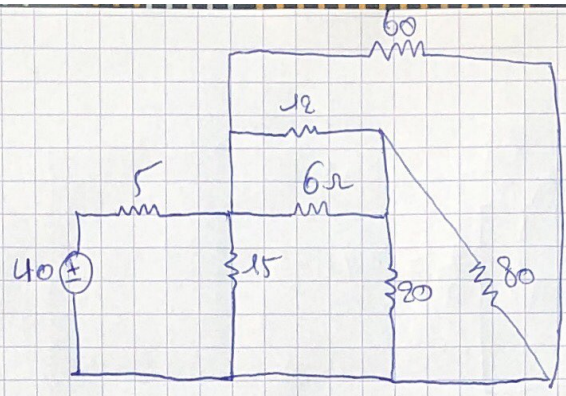
3)





$V_O = \frac{60}{13} \cdot \frac{30}{\frac{810}{13}+30} = \boxed{1{,}5V}$

4)



$R_{eq} = ?$

$R_{eq} = ((80 // 20) + (12 // 6)) // 60 // 15 + 5$

$R_{eq} = (16 + 4) // 60 = 15$

$R_{eq} = (15 // 15) + 5 = \boxed{18,5\Omega}$

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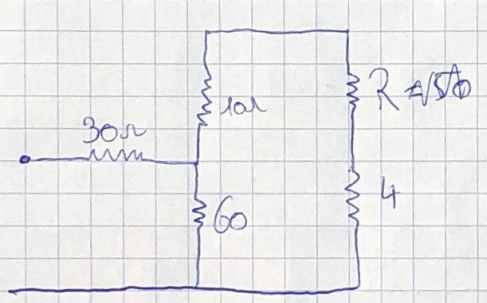
5)



$R_{eq} = 50$ ohms

$R + 4 + 10 + (30 // 60) = 50$

$R + 4 + 10 + 20 = 50$

$R = 50 - 34$

$R = \boxed{16\Omega}$