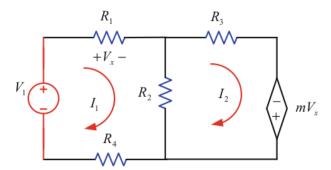
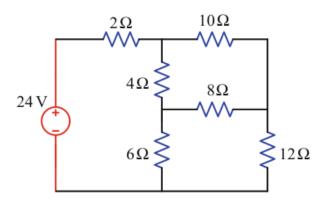
## PH3104 Problem Set 2

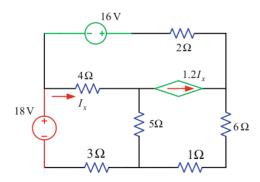
**Q 1)** Use the mesh method to find the current through the resistors  $R_2$  in the circuit below (here m is a fixed number):



 $\mathbf{Q}$  2) Find the current through the 12  $\Omega$  resistor in the circuit below by using Thévenin's theorem.



**Q 3)** Use Norton's theorem to find the current through the 6  $\Omega$  resistor in the circuit below:



**Q 4)** Find the value of R in the circuit below which will lead to the maximum power transferred to it, as well as this maximum power.

