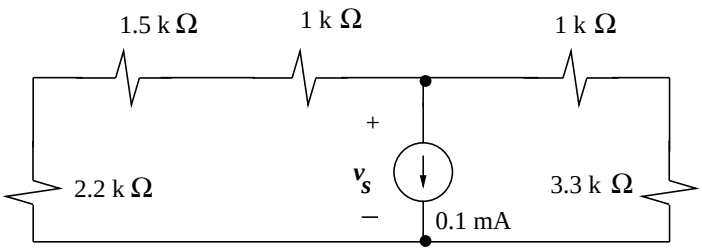
ES 332: Fall 2020, Hwk4

Name: _____

1. For the circuit shown in the figure below, find the voltage v_s across the current source.

v_s =_____



2. For the circuit shown in the figure below,

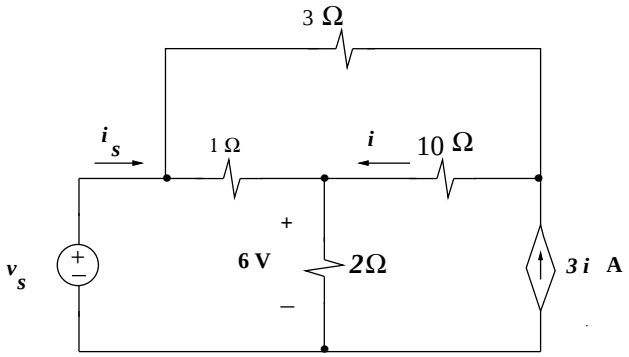
   (a) Find the current across the 1Ω resistor: $i_{R_{1\Omega}}$= _____

   (b) Find the current across the 3Ω resistor: $i_{R_{3\Omega}}$= _____

   (c) Find i_s. i_s = _____

   (d) Find v_s. v_s = _____

   (e) Find the resistance $R_{eq} = v_s/i_s$ seen by the voltage source. R_{eq} = _____



3. For the circuit shown in the figure below,

   (a) Write Mesh current equations (i_1 and i_2).

   (b) Write Node voltage equations (V_1, V_2 and V_3).