Problem 2B

A schematic diagram is shown below with a voltage source and three unknown circuit elements in E1, E2, E3 and E4. Circle the correct answer for the questions below.

![Schematic Diagram]

a) The voltage across E3 ______ the voltage across E4.
   1) is the same as
   2) is different from
   3) is unrelated to

b) The current through E3 ______ the current through E4.
   1) is the same as
   2) is different from
   3) maybe unrelated to

For b,... if E2 was a voltage source, the voltage across E3 & E4 would be the same regardless of their individual resistances and the current through one of them could not effect the other one. In that case, there is no relationship between the currents through E3 & E4.