Given the network shown.

(a) How many total junctions are there?
(b) How many unknown currents are there?
(c) Write down the loop equations for interior loops A and B. Traverse the loops clockwise.
(d) Write down the junction equation for junction C.
(e) How many loop equations will be needed for a complete solution?

4 (a) 6
4 (b) 10
8 (c) A: \[ \varepsilon_1 - I_1 R_1 - \varepsilon_2 + I_6 R_6 = 0 \]
          B: \[ -I_6 R_6 + I_9 R_9 - \varepsilon_3 + I_8 R_8 = 0 \]
5 (d) \[ I_6 - I_3 - I_4 - I_7 + I_9 = 0 \]
4 (e) 5