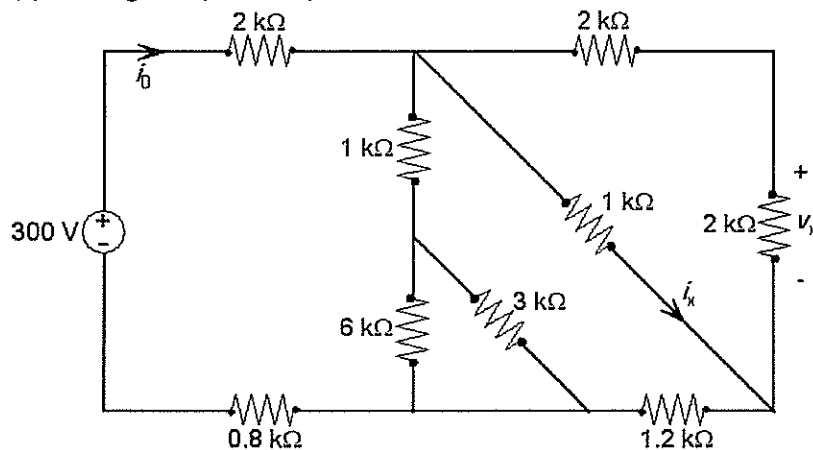# University of Toronto
## Department of Electrical & Computer Engineering
### ECE110S – Electrical Fundamentals
### Quiz 2 – February 15, 2006, 4:30-5:00 PM

**Instructions:** Non-programmable calculators allowed. No other aids. Answer in the space provided on these sheets. The back sides of these sheets can be used as well. For full marks (20) you must show methods, state UNITS and compute numerical answers when requested. **Please write in PEN, not pencil.**

1. For the circuit below use circuit reduction, voltage division, and current division to calculate:

(a) Current $i_0$. **(3 marks)**

(b) Current $i_x$. **(3 marks)**

(c) Voltage $v_x$. **(3 marks)**

2. In the circuit below use the Node-Voltage method.
(a) Calculate the current $i_x$ and the voltage $v_x$. **(8 marks)**
(b) Calculate the power delivered or absorbed by both sources. **(3 marks)**