**Experiment No.4 Date:05/10/2021**

**Circuit Analysis with Dependent Sources**

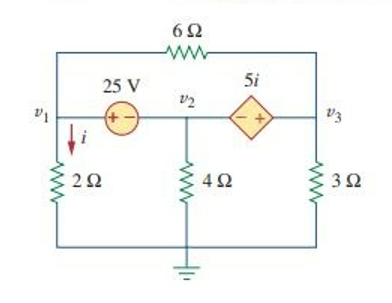
**Objectives:**

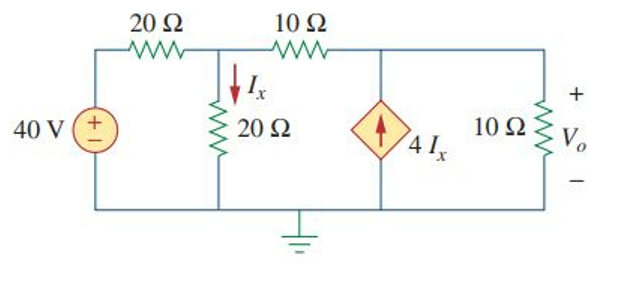
1. To model dependent voltage sources and current sources in LTSpice
2. To find the nodal voltages and branch currents

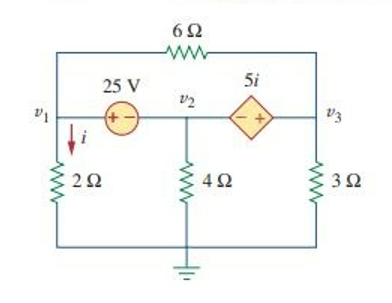
**Simulation Tool:**

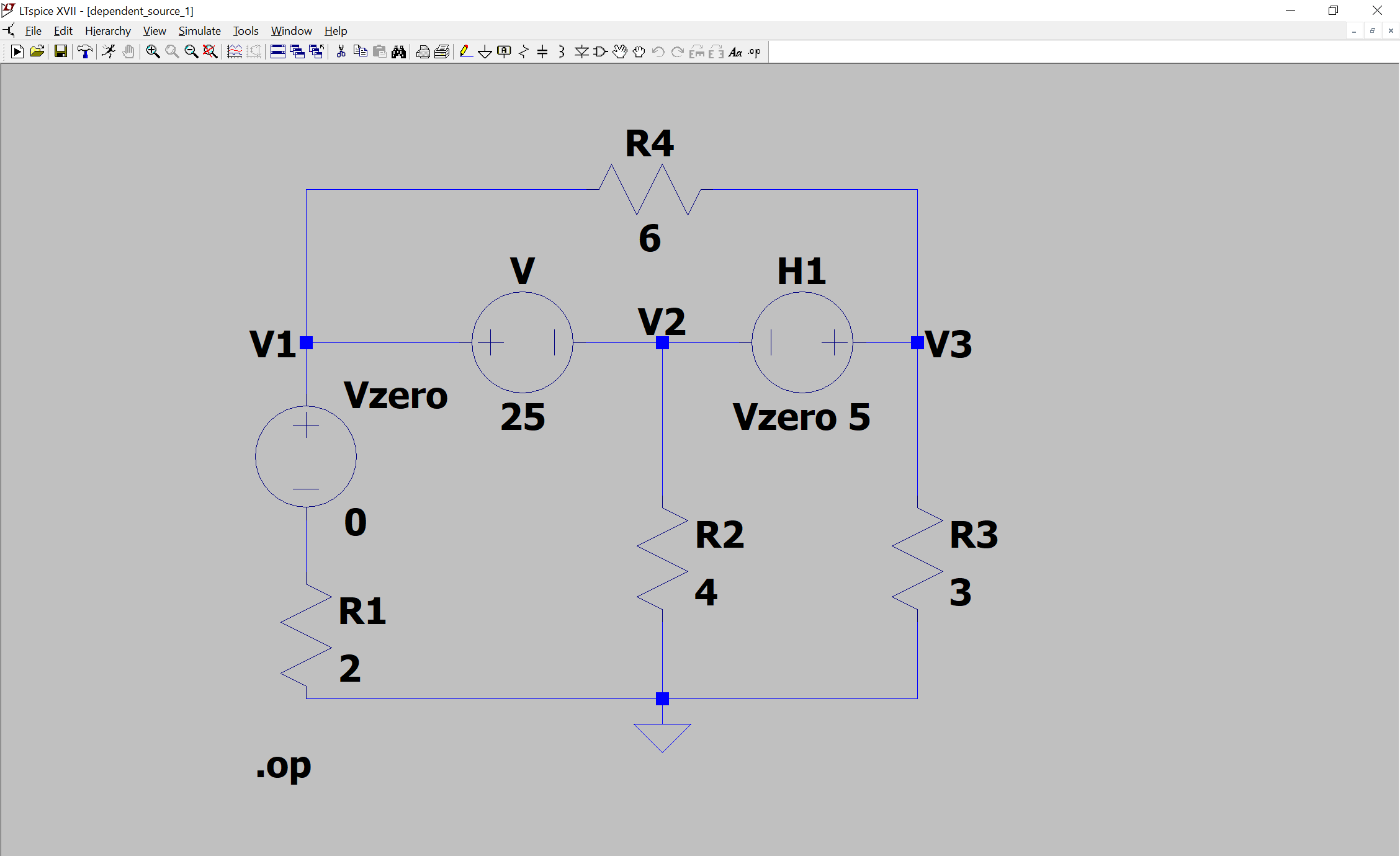
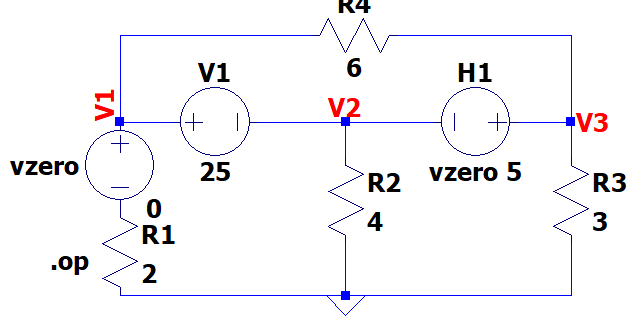
LTSpice – dc operating point analysis and transient analysis.

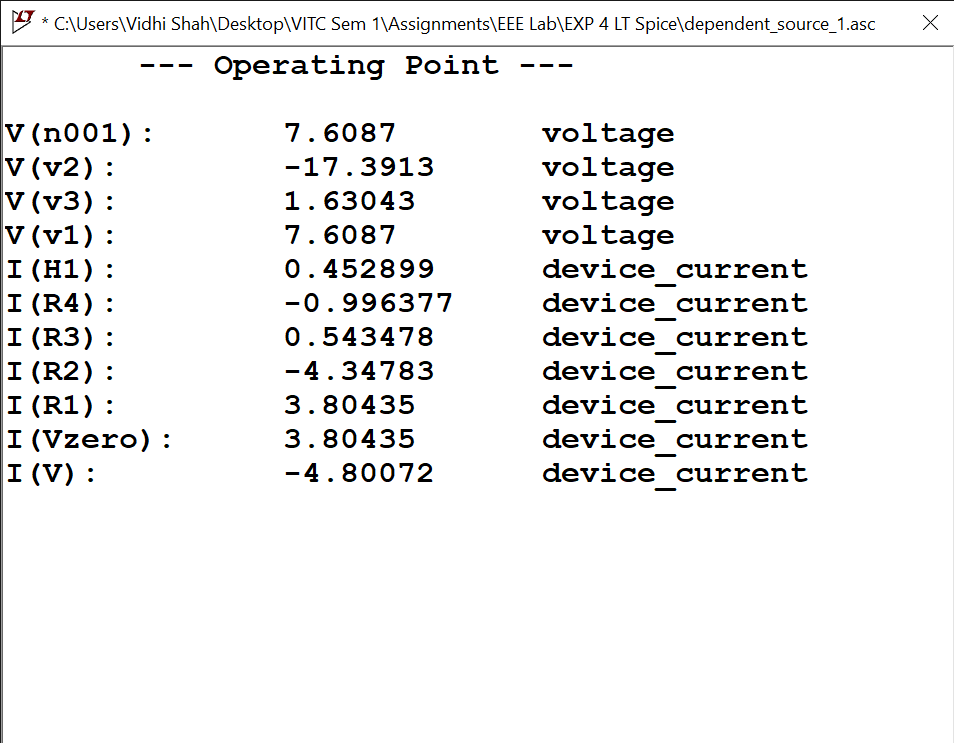
**Circuits:**

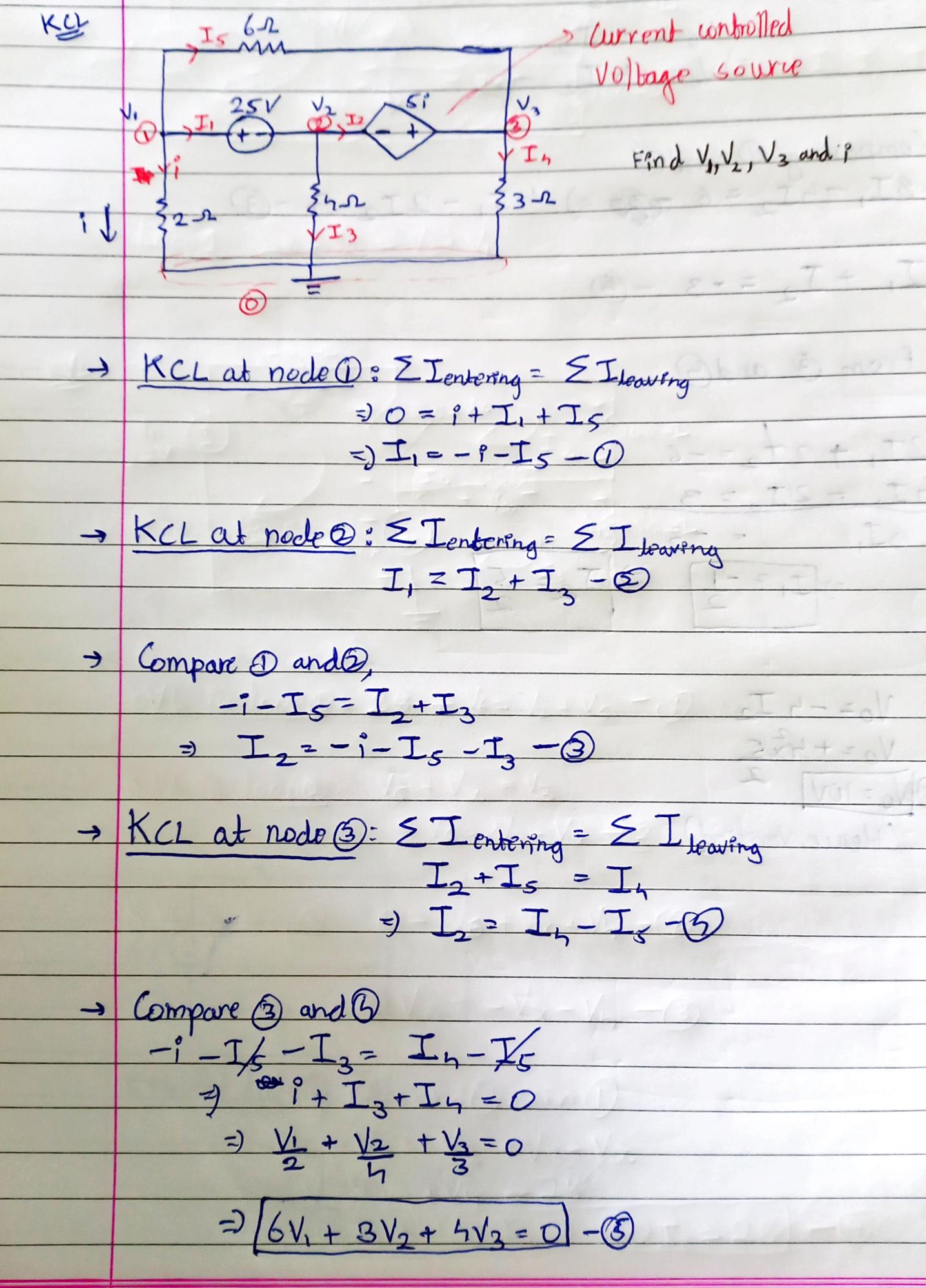


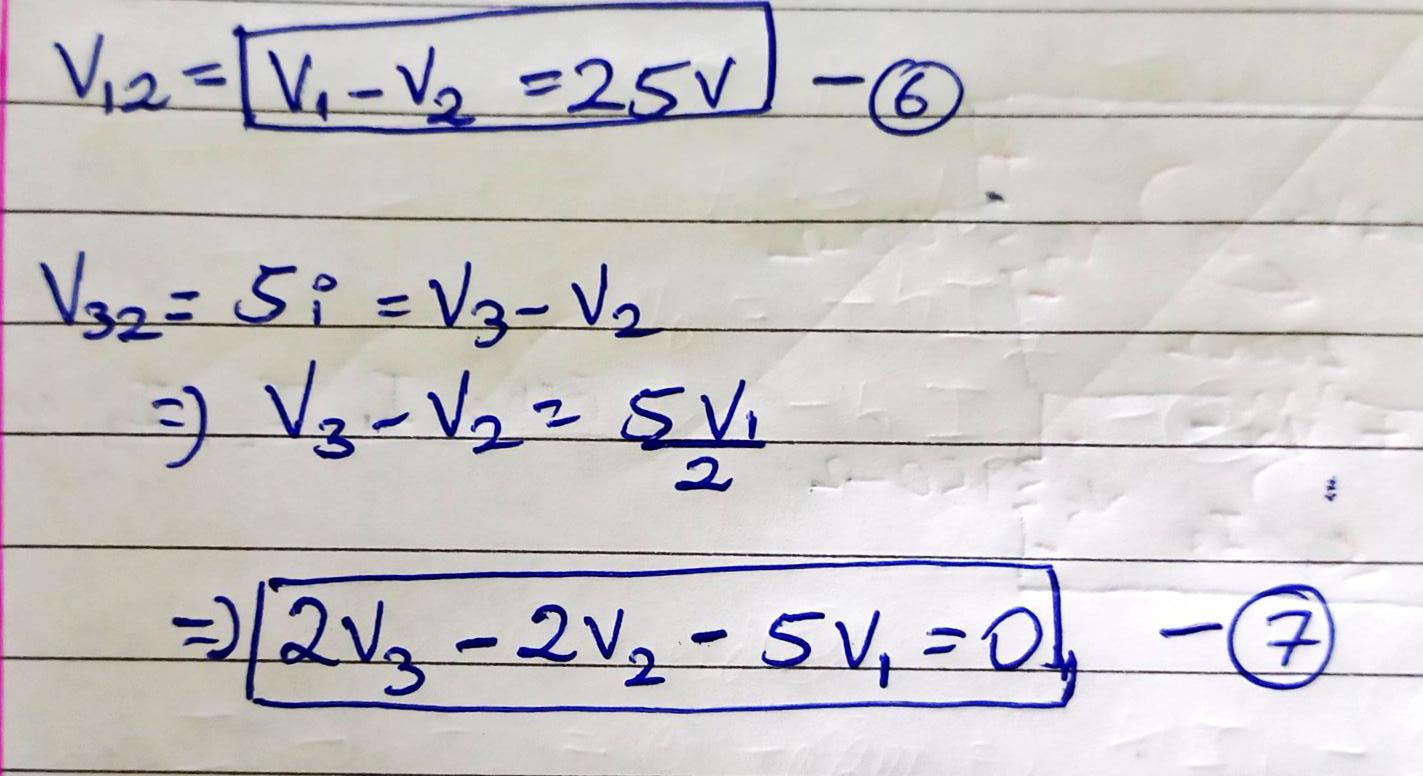


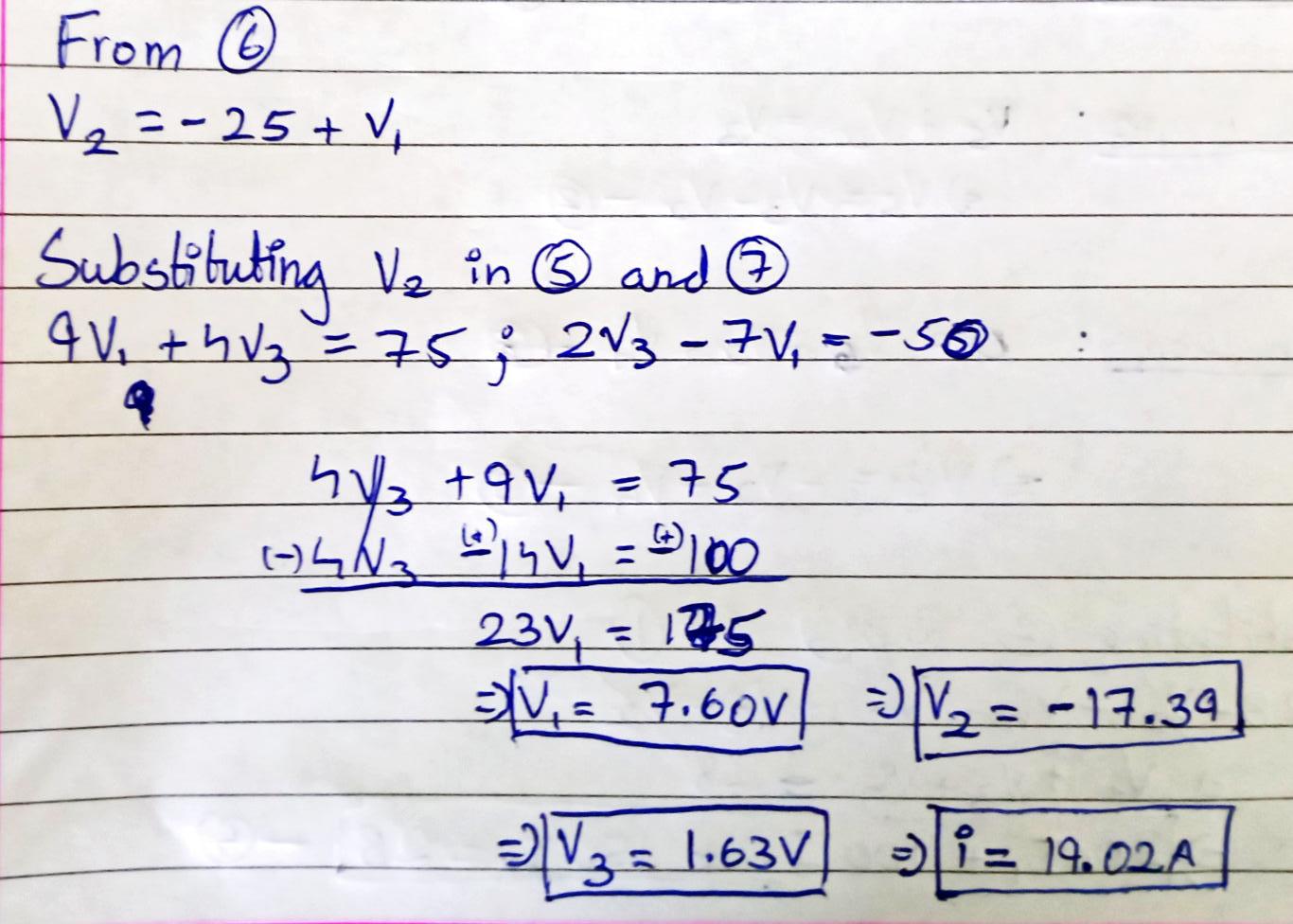
**Current Dependent Voltage Source**

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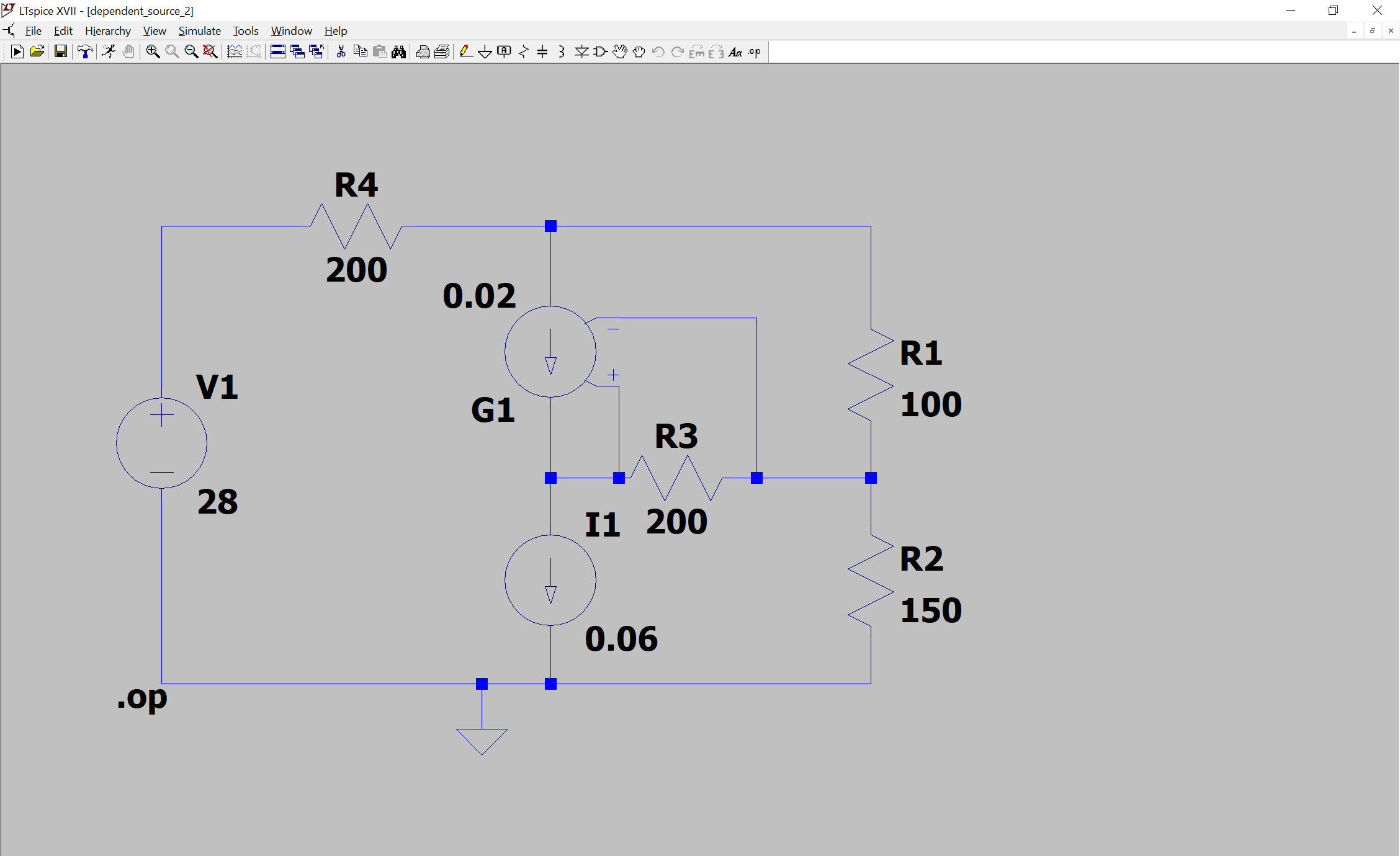


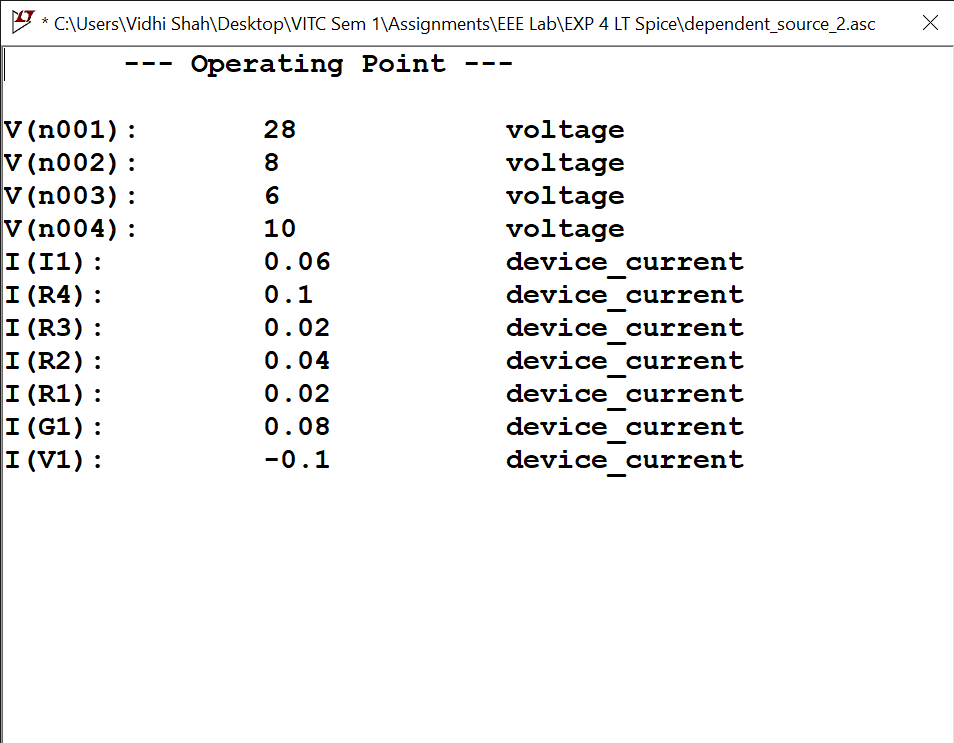
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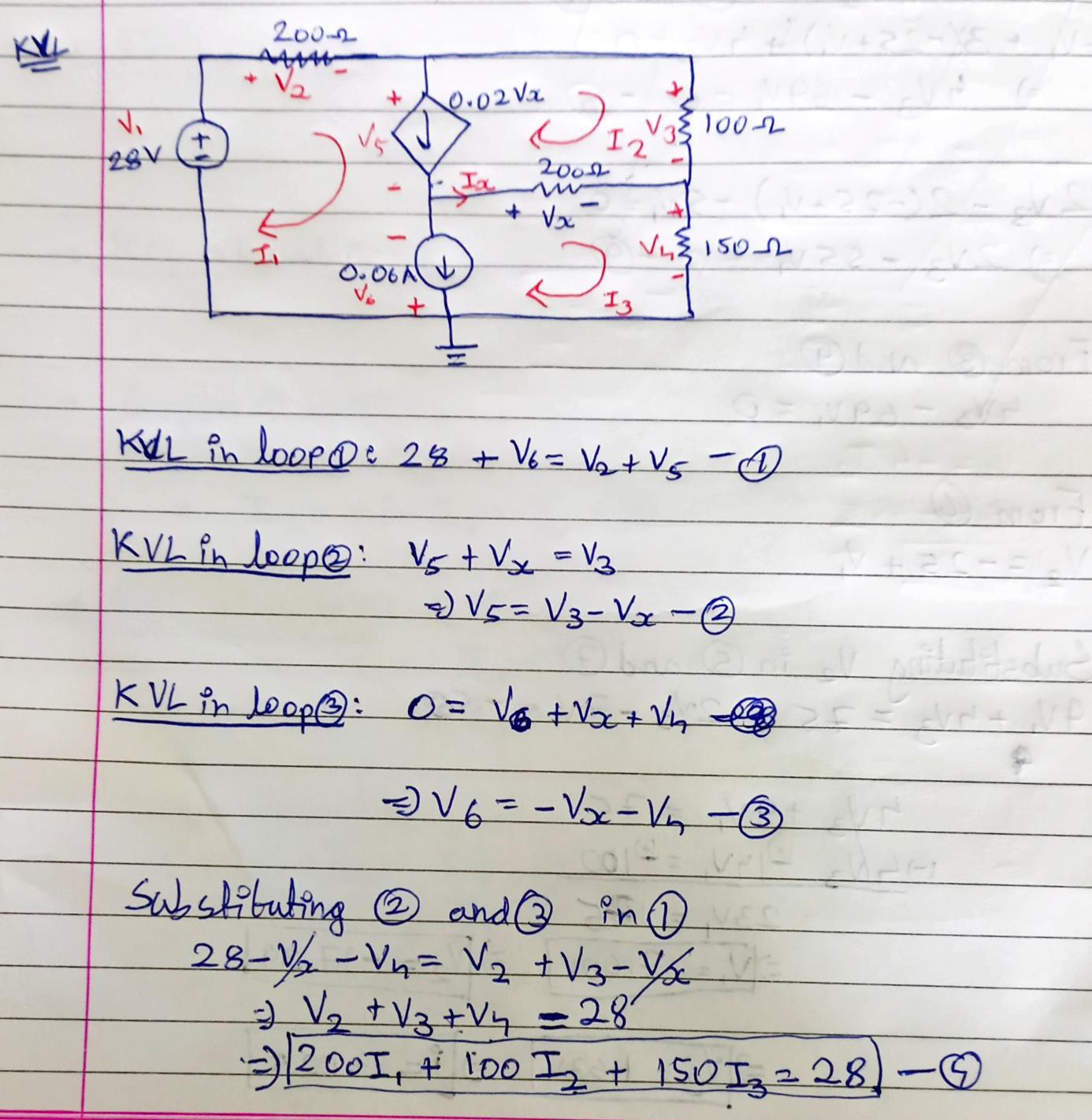
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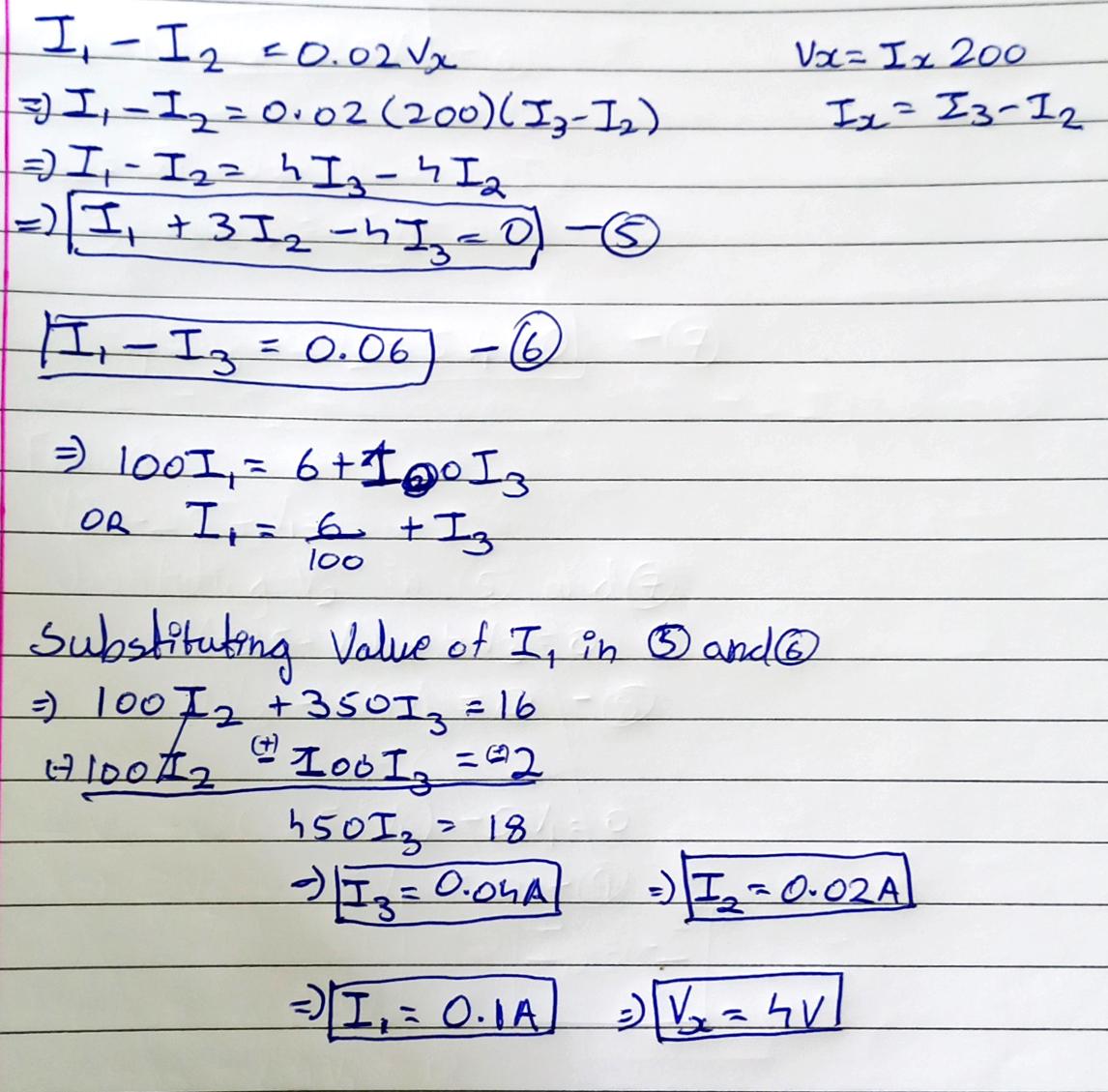
**Voltage Dependent Current Source**

**1) Class work question**

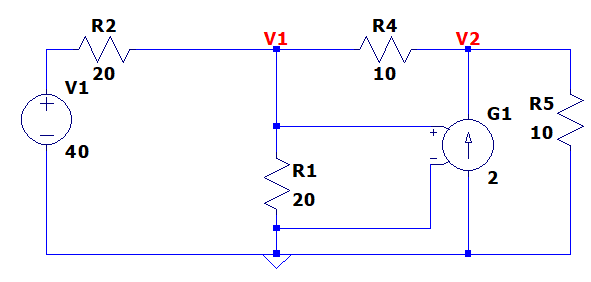
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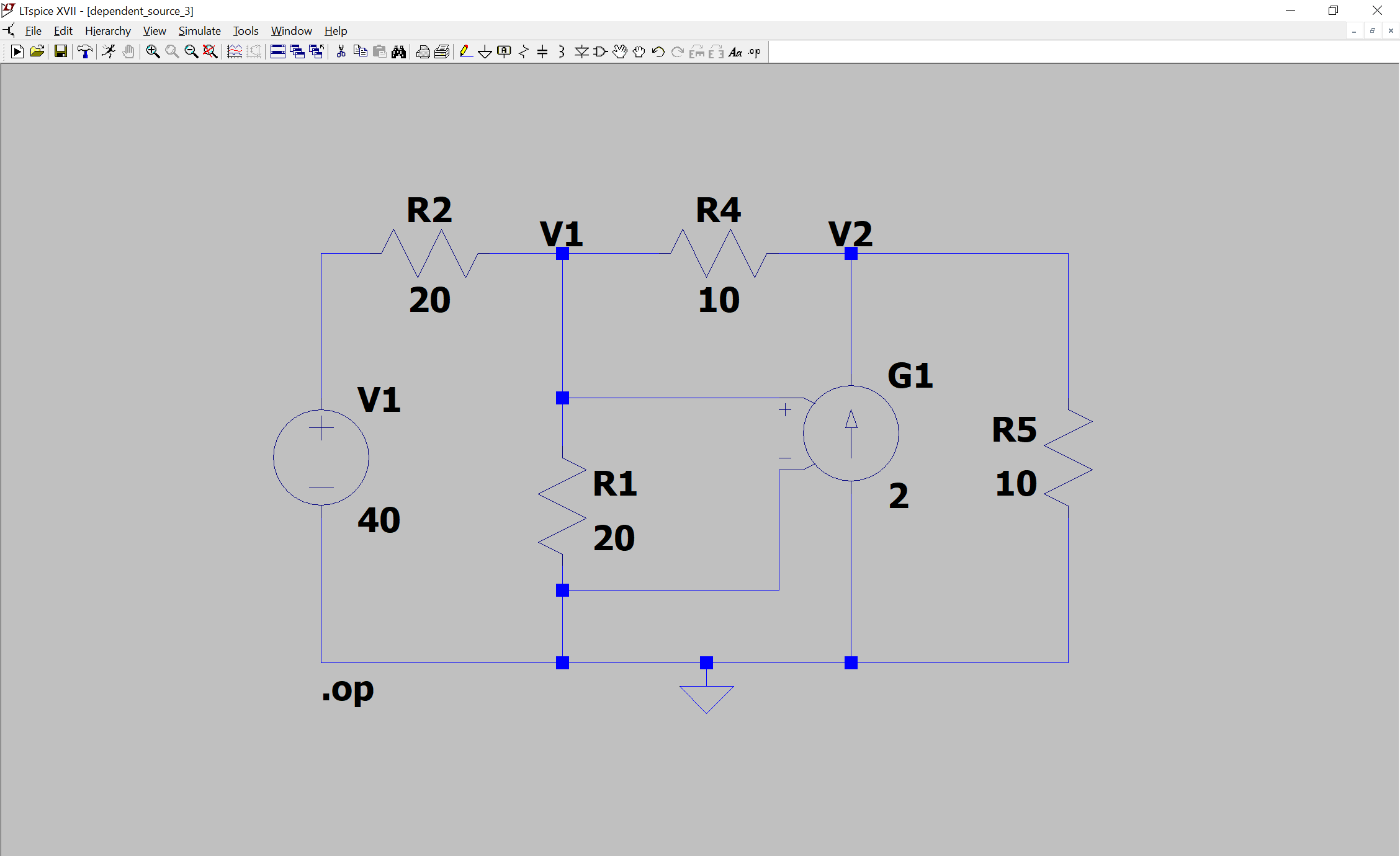
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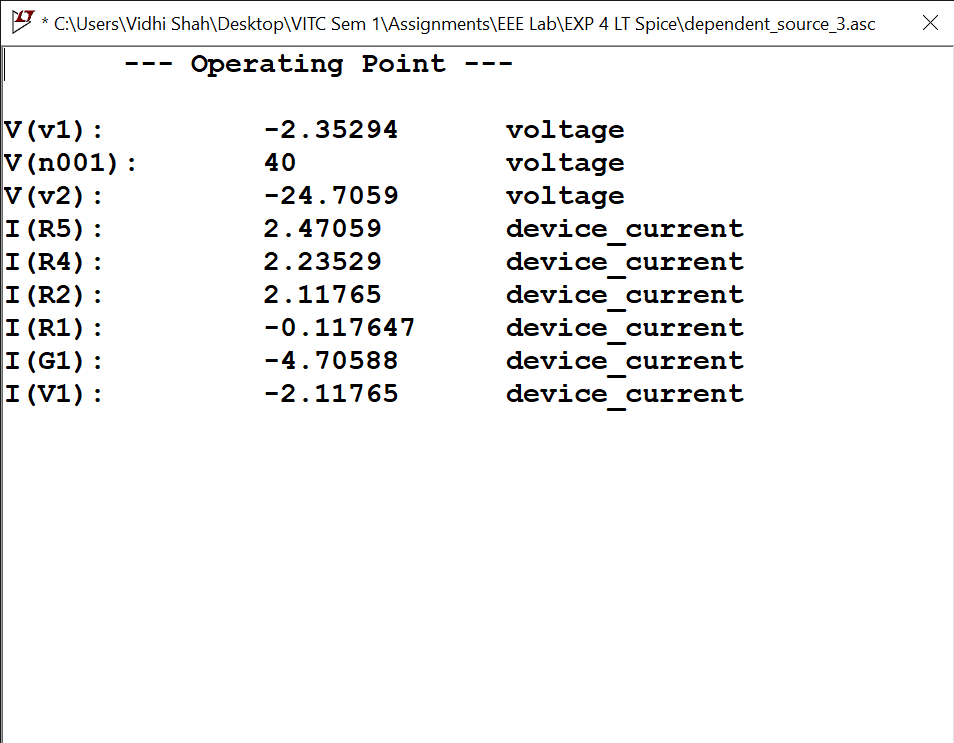
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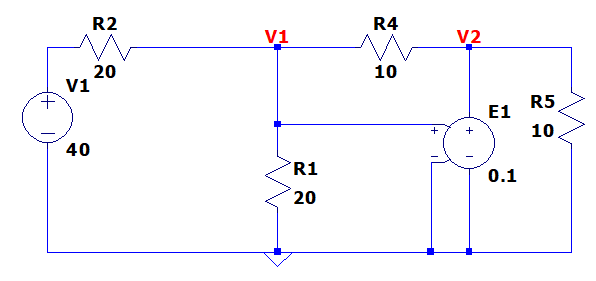
**2) Practical file question**

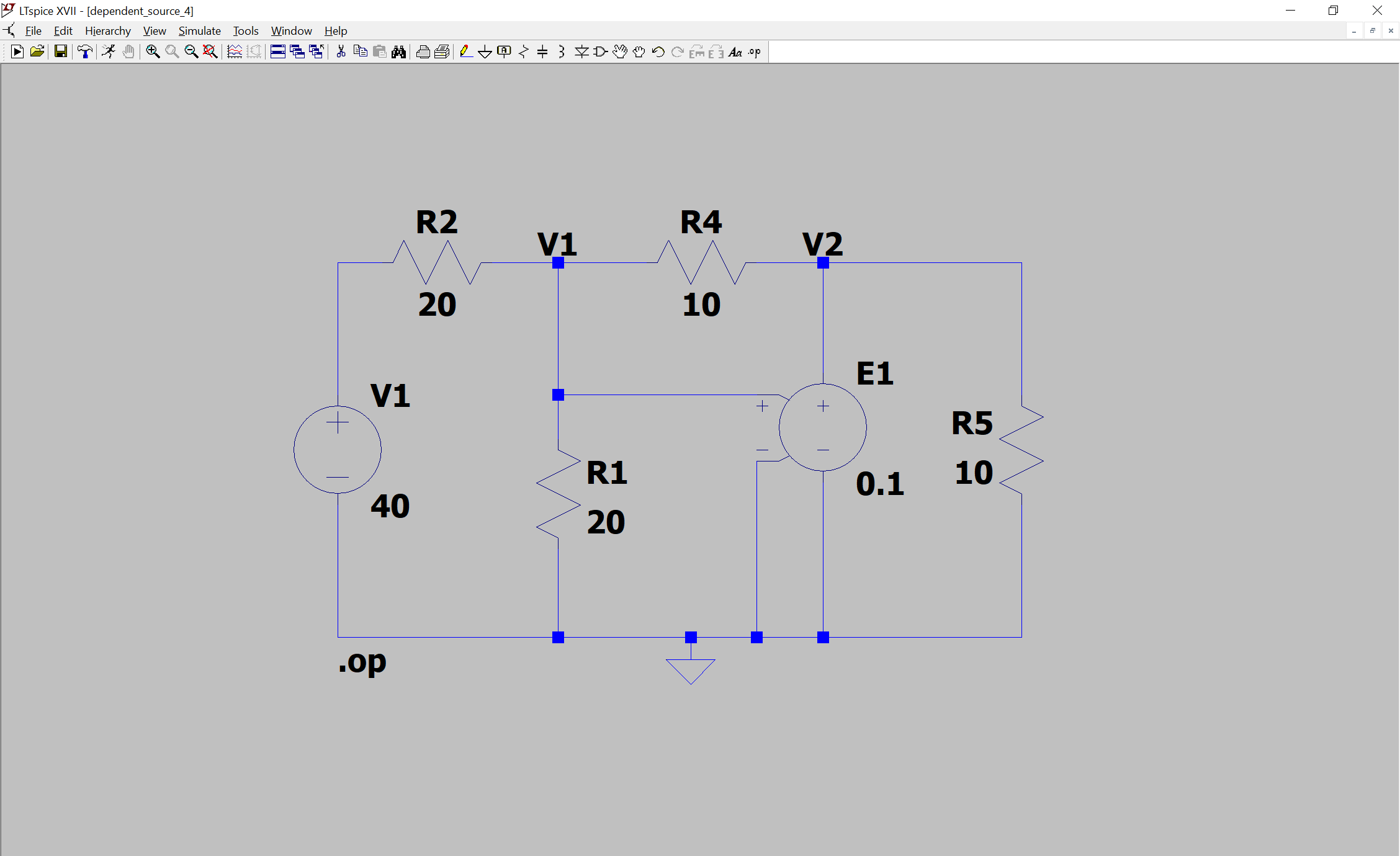


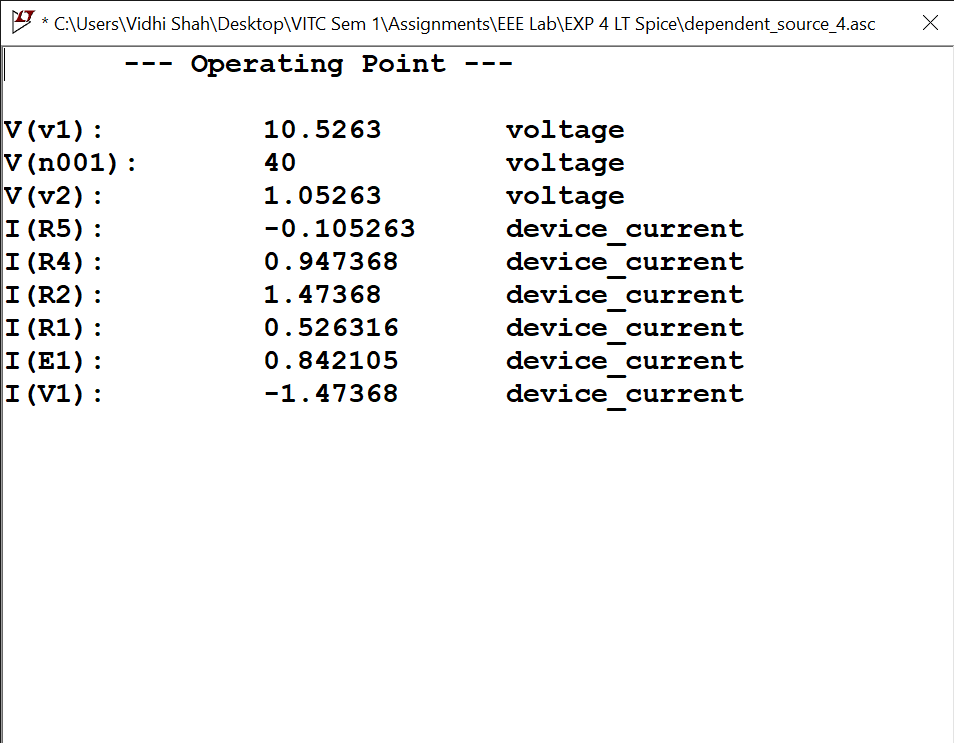
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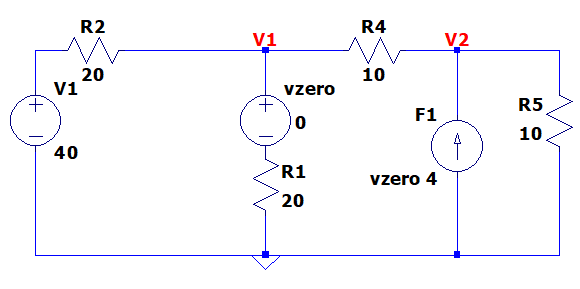
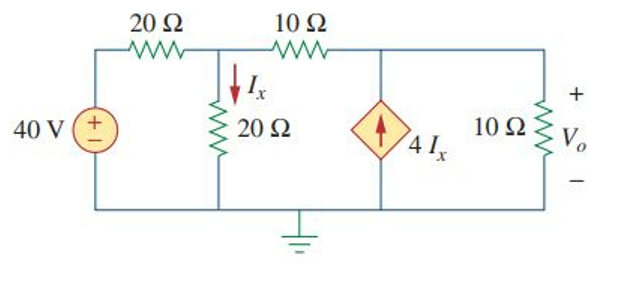
**Voltage Dependent Voltage Source**

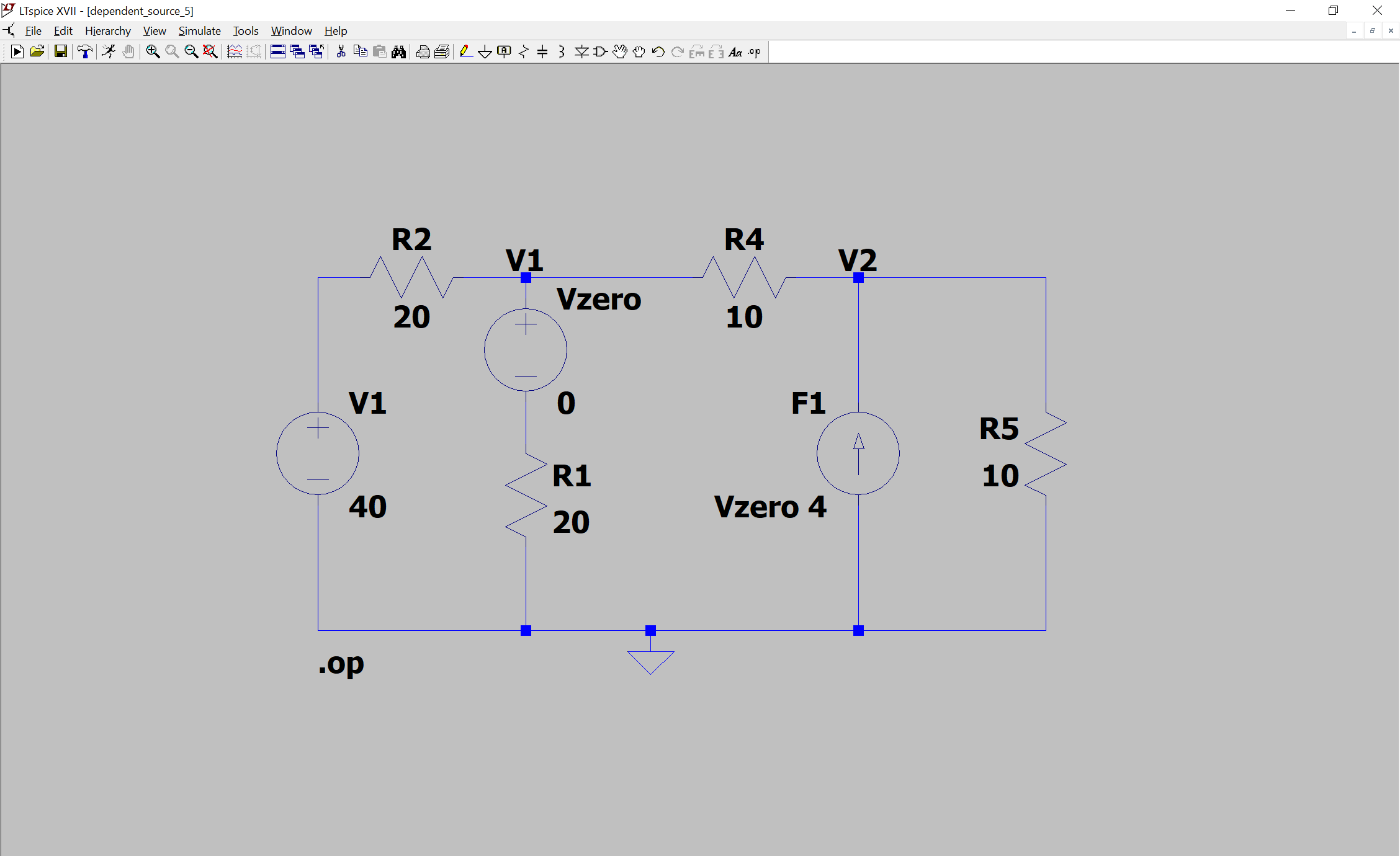


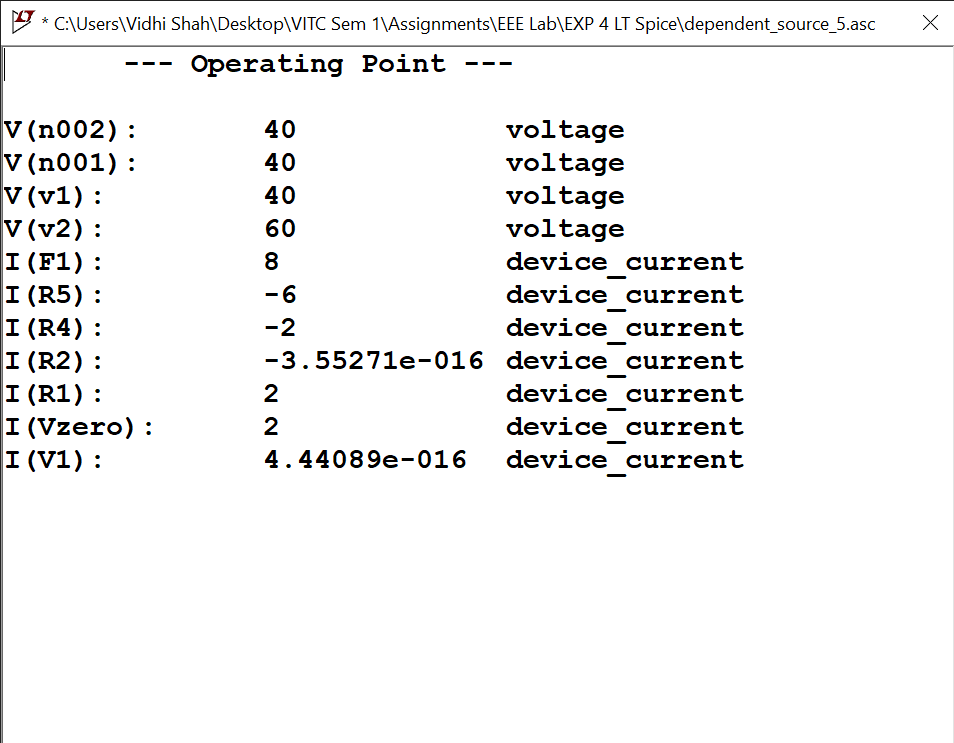


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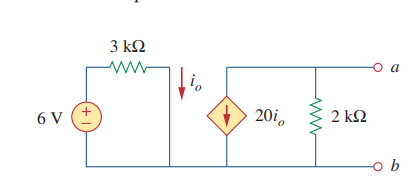
**Current Dependent Current Source**

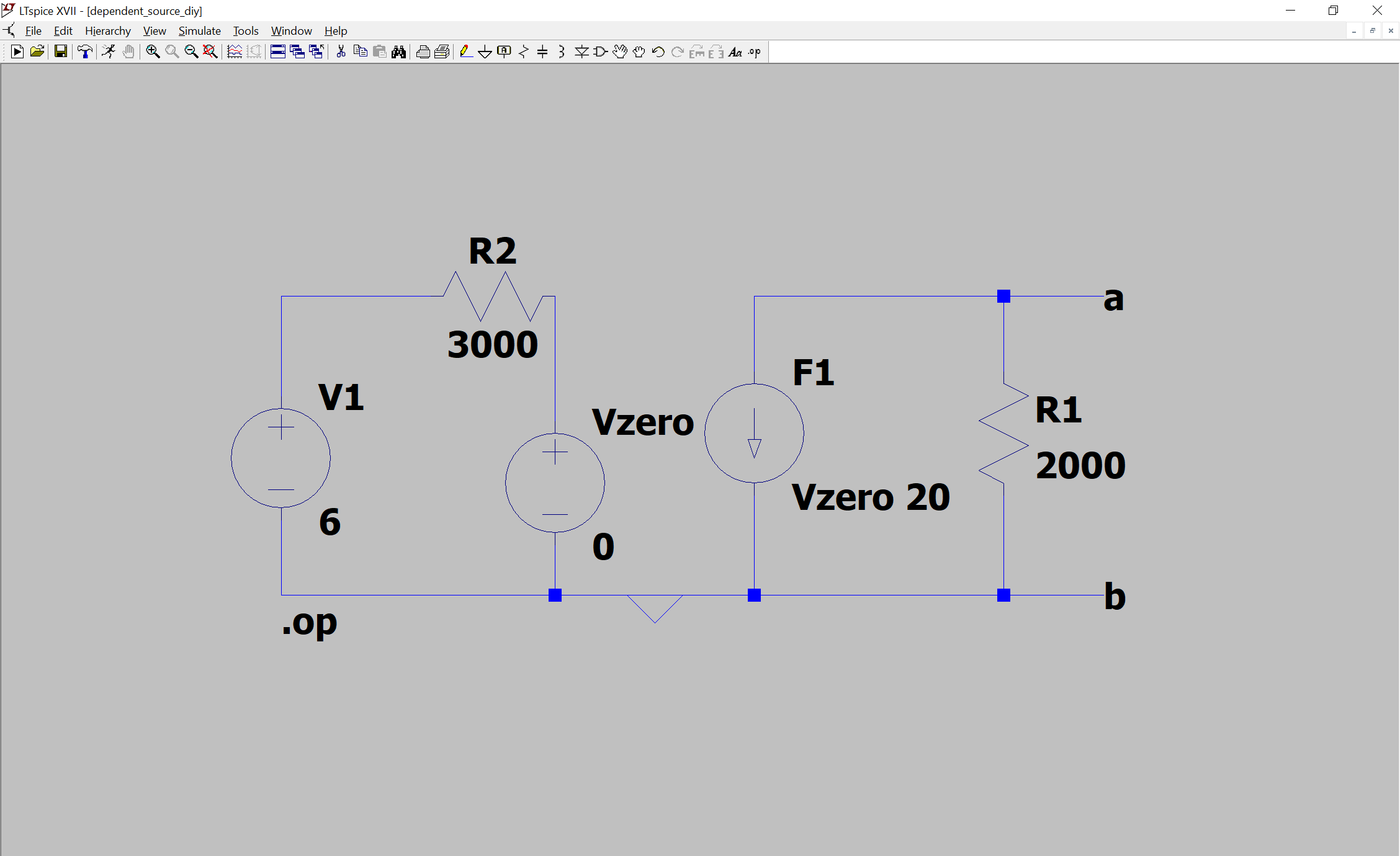
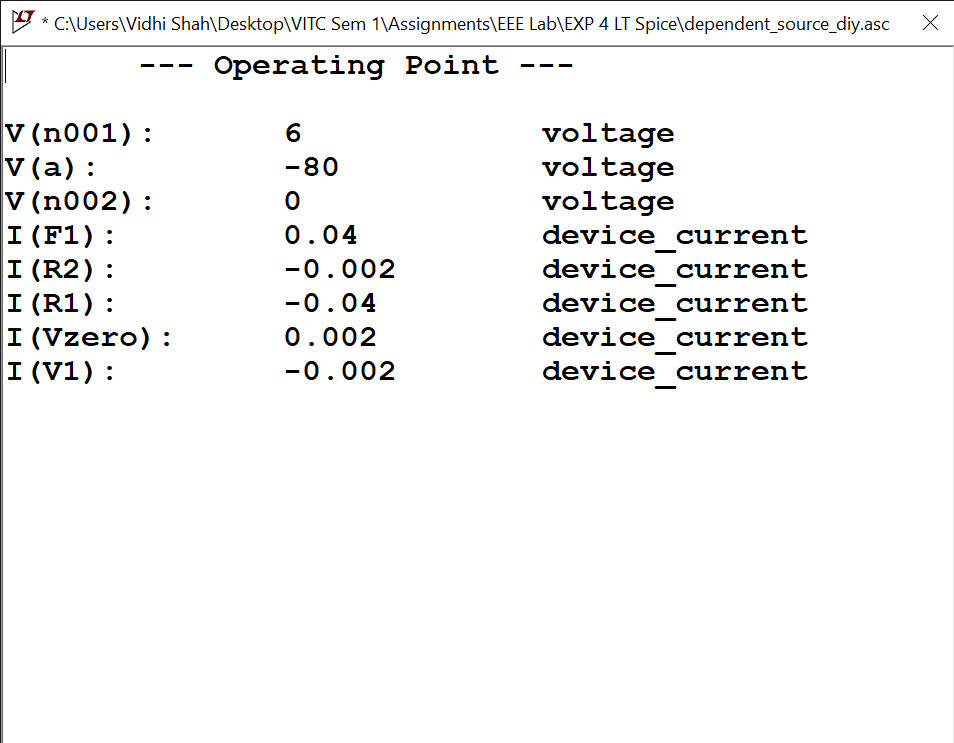


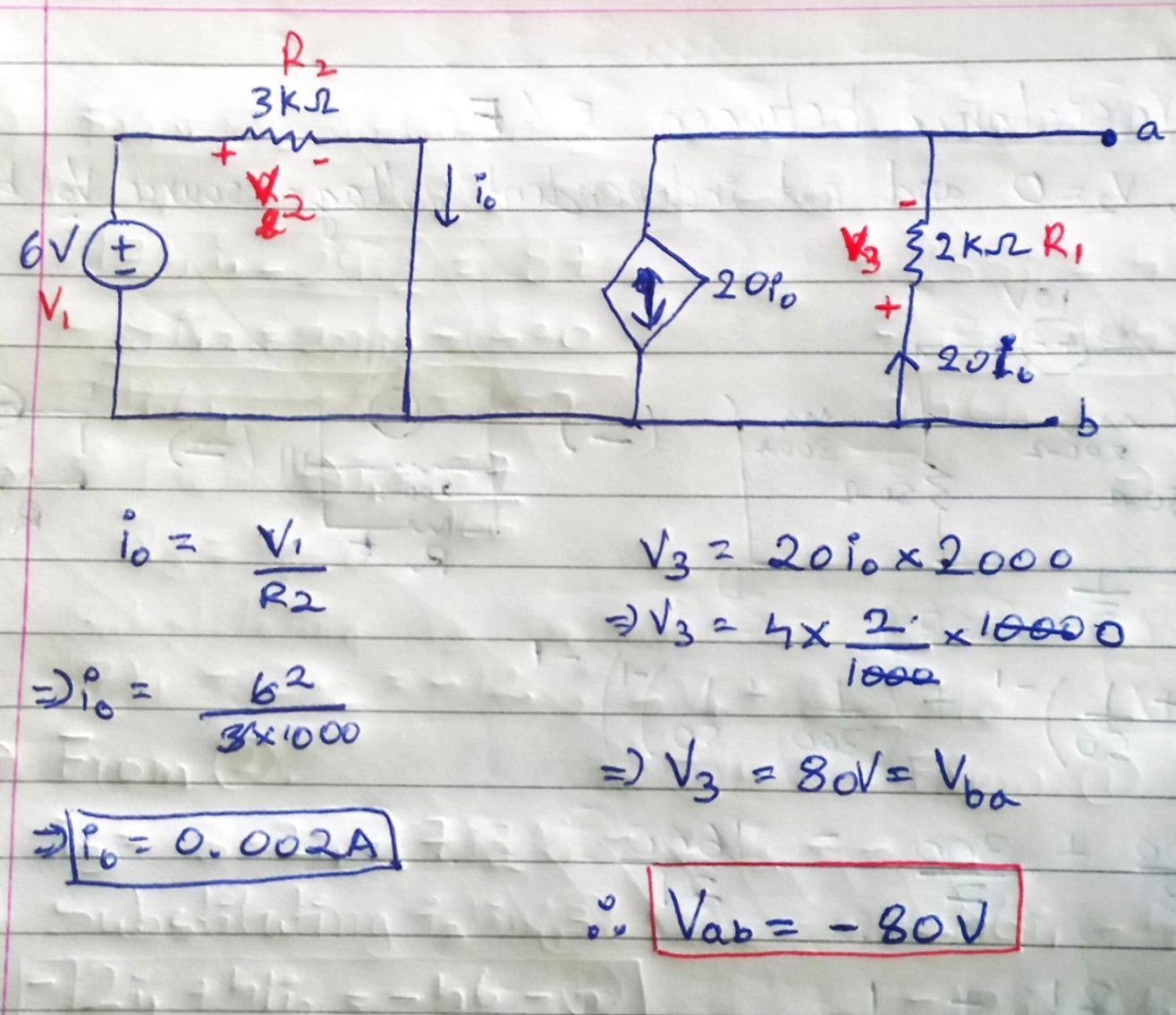
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**Do it Yourself:** Find io and voltage across the terminals a-b



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