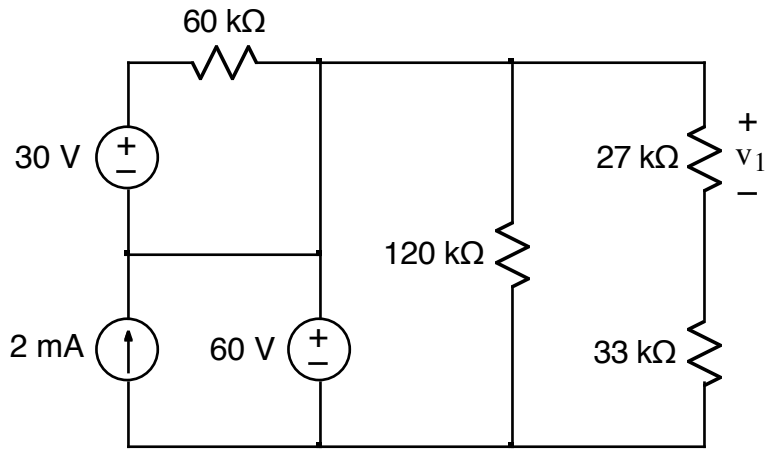
EX:



Calculate v_1.

sol'n: We have voltage divider consisting of the 60V src and the 27kΩ and 33kΩ resistors.

$$v_1 = 60V \cdot \frac{27k\Omega}{27k\Omega + 33k\Omega}$$

$$= 60V \ \frac{27k\Omega}{60k\Omega}$$

$$v_1 = 27V$$

Note: Here, we have several circuits in parallel across the 60V src: the 2mA src, the 120kΩ resistor, and the 27kΩ and 33kΩ resistors. We can solve each of these circuits separately, as though they each had their own 60V src.

The 30V src and 60Ω resistor are isolated by wires from the rest of the circuit.