

Today we learned a shortcut for doing problems where all resistors are connected to a voltage source. Because it is conventional to put the ground at the bottom, when doing that on the first problem we quickly realized it would be difficult to produce two negative voltages with our power supply and one positive voltage. To fix this issue, we instead used the same voltage sources in the same places except with their voltage negated, which meant that our numbers would come out with the right magnitude but negative, so we could just negate it to get back to the right answer. Moreover, we didn't need a ground in this experiment because since we were supplying negative voltages we already had a closed circuit and didn't need a redundant connection.

Citation:

Andy98Andy98 1111 silver badge22 bronze badges, et al. "If You Source a Negative Voltage from a Power Supply, Should the Current Be Negative Also?" *Electrical Engineering Stack Exchange*, 1 Oct. 1966, electronics.stackexchange.com/questions/595023/if-you-source-a-negative-voltage-from-a-power-supply-should-the-current-be-nega.