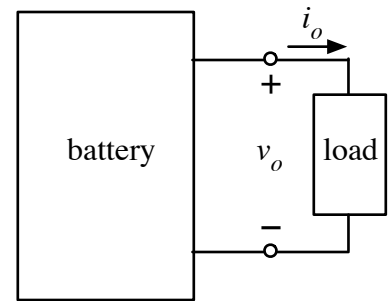**EE 201 — HW 3-16**   Name_____

Consider a battery in an automobile.

When the radio is on — and everything else is switched off — the voltage at the battery terminals is 12.7 V and the current flowing from the battery is 1 A.

When the headlights are on — and everything else off — the voltage at the battery terminals is 12.5 V and the current flowing from the battery is 5 A.

How much current should this battery be able to apply to the starter when you are trying to start the car? Assume the starter coil can modeled as a 0.05-Ω resistor.

(Hint: Yes, this is a Thevenin equivalent problem.)

i_o (start)= _____