



2nd Test

Full name :

Exercise1 :

A metallic rod has a length $L = 1.5$ m and a diameter $D = 0.2$ cm. The rod carries a current of 5 A when a potential difference of 75 V is applied between its ends.

- a- Find the current density in the rod.
- b- Calculate the magnitude of the electric field applied to the rod.
- c- Calculate the resistivity and conductivity of the material of the rod.
- d- Find the resistance of the rod.

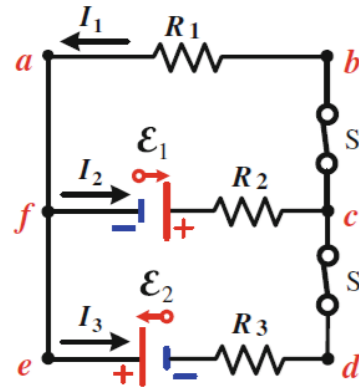
--	--

Exercise2 :

In Fig, let $R_1 = 2\Omega$, $R_2 = 6\Omega$, $R_3 = 4\Omega$,

$E_1 = 10\text{ V}$, and $E_2 = 14\text{ V}$.

Find the currents I_1 , I_2 , and I_3 in the circuit.



Good luck