1) Draw Schematic below and Calculate

Current I and Verify with Simulation

a)

$100\,\Omega$

$I = ?$

$4.5V$ $\pm$

$I = ?$

100 100

$I = ?$

$4.5V$ $\pm$

$I = ?$

I_1 100

I_2 100

$4.5V$ $\pm$

$\downarrow I$

$I = ?$ $I_1 = ?$ $I_2 = ?$

2)

a)

100Ω

4.5 (+ / -)

$I = ?$

b)

$I = ?$

$6V$ (+ / -) E_s

$R = 100\Omega$
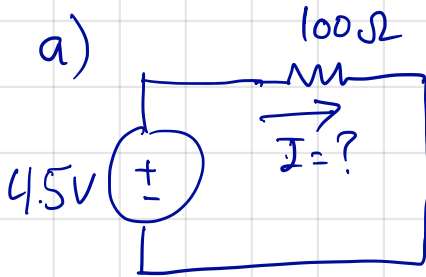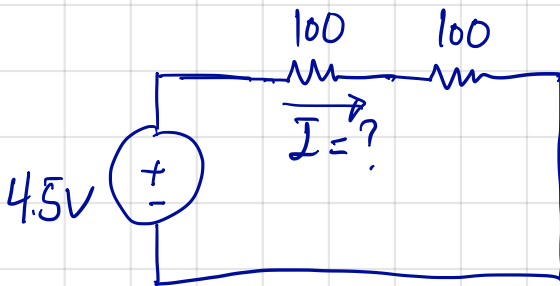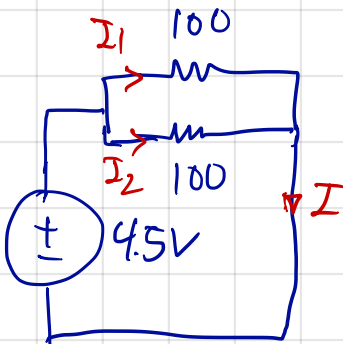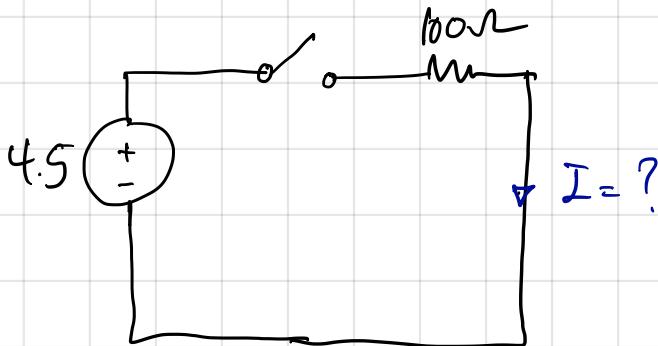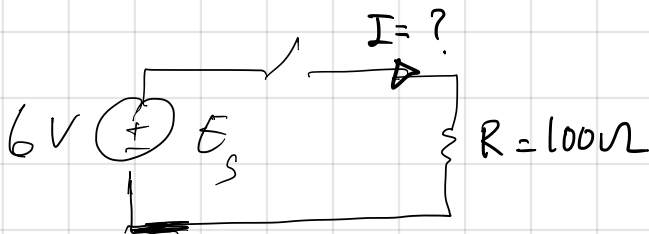
for above circuits:

what is I when switch is open

$I = ?$

what is I when switch is closed

$I = ?$
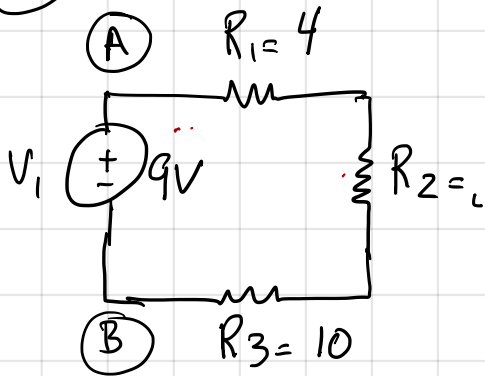
what is Power Consumed by 100Ω resistor

Power = ?

③

50V

$V_2 = 16V$

40V

V_1

V_3

Find

$V_1 =$

$V_3 =$

(4)

(A) $R_1 = 4$

V_1 (±) 9V $R_2 = {}_L$

(B) $R_3 = 10$
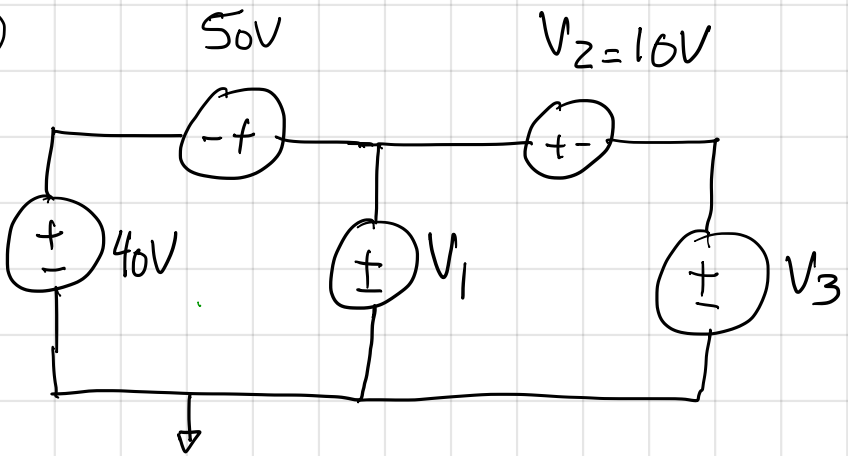
what is the total resistance between
a) node A, B $R =$

b) what is the total current between node
(A) and (B) $I =$

c) what is the Voltage drop across R_1, R_2

$V_{R1} =$ V_{R_2}

(5) what is the current I_a

I_a

$9V$

$R = 3$

$R_2 = 9$