Q1

For the first two sub-questions, the switch is open.

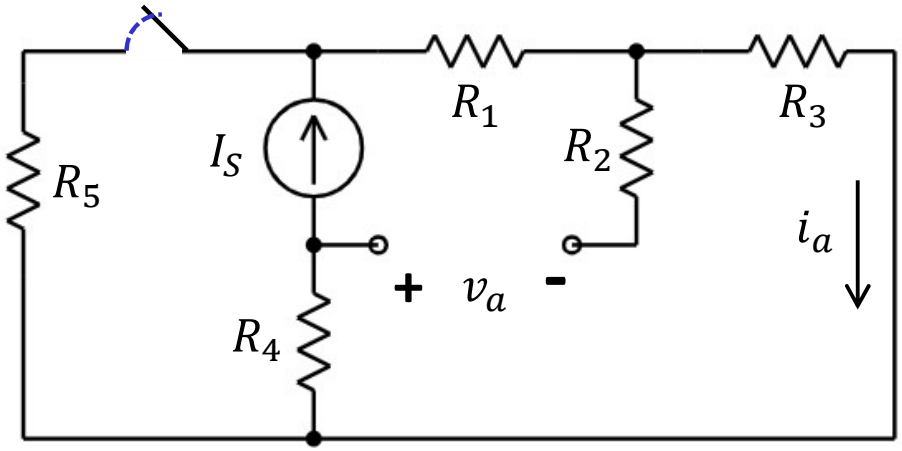
a. What is the voltage v_a?

b. What is the power P_1 supplied by the resistor R_1?

For the next two sub-questions, the switch is closed.

c. What is the current i_a?

d. What is the power P_2 received by the current source?



R1:	1 Ω
R2:	1 Ω
R3:	5 Ω
R4:	0 Ω
R5:	3 Ω
Is:	3 A

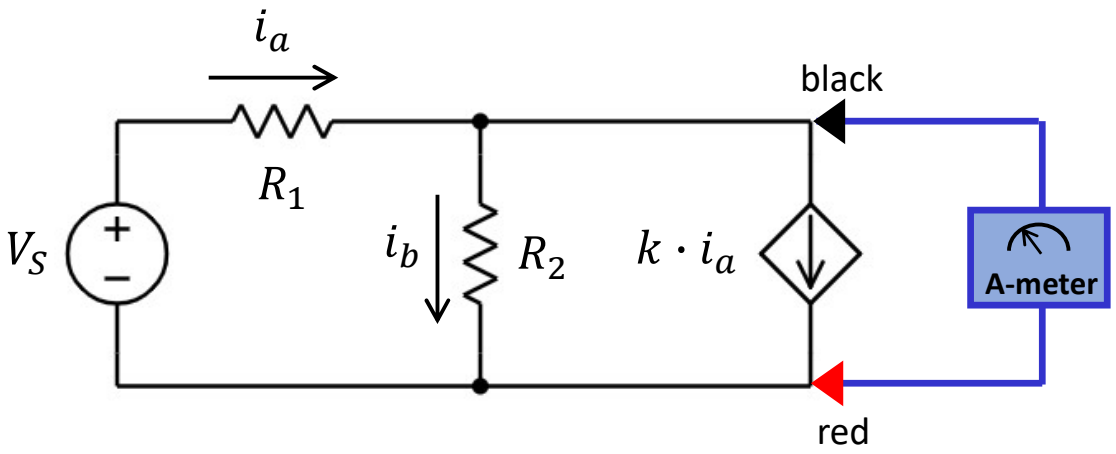
Q2

In the problem below, the ammeter is ideal.

a. What is the current i_b?

b. What is the reading *X* of the ammeter?

c. We make two changes to the circuit: (1) we replace the ideal ammeter with an ideal voltmeter (without changing the positions the red and black terminals) and (2) we change the value of V_S such that i_a is now 1 A. In this new circuit, what is the reading *Y* of the newly-placed voltmeter?



R1:	2 Ω
R2:	1 Ω
k:	3
Vs:	2 V