

ECE 35, Fall 2019

Quiz 1 – Section A

/ 10

Last name

First + middle  
name(s)

PID

**Instructions:**

- Read each problem completely and thoroughly before beginning
- All calculations need to be done on these sheets
- Write your answers in the answer boxes for each question. Make sure you list units!
- Answers without supporting calculations will receive zero credit

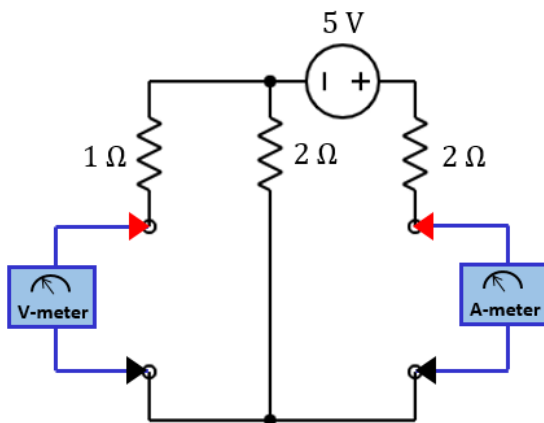
(1) (3 points) In the problem below, both the volt-meter and the ammeter are ideal.

(a) What is the reading  $X$  of the volt-meter?

$X$

(b) What is the power  $P_1$  received by the ammeter?

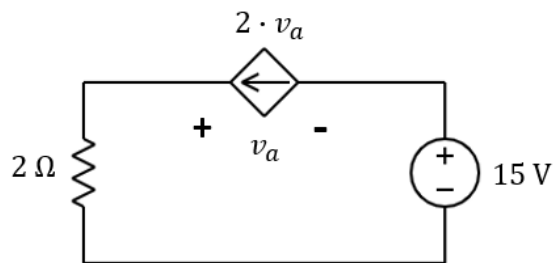
$P_1$



(2) (3 points) Find  $v_a$ .

(The units of the dependent-current-source constant are A/V).

$v_a$



- (3) (4 points) In the problem below,  $P_1$  is the power supplied by the voltage source  $V_1$  and  $P_2$  is the power supplied by the voltage source  $V_2$ . You are given that the sum of  $P_1$  and  $P_2$  is 3W.

(a) What is the power  $P_3$  received by the current source?

$P_3$

(b) Find  $P_1$  and  $P_2$ .

$P_1, P_2$

