Learning Assessment L02B, 6.200S23   Name:_____
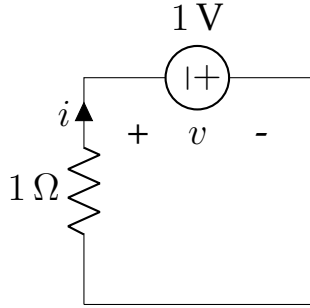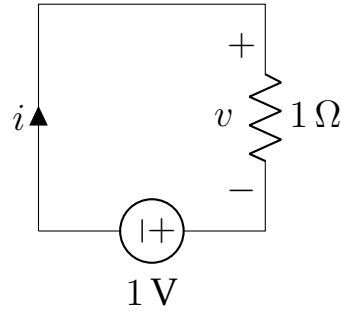
All responses that show sincere effort will receive full credit.

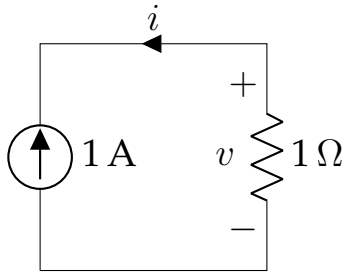1. Circle the correct variable values below each of the circuits.

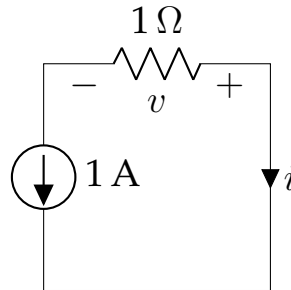$i =$ +1 A   -1 A $i =$ +1 A   -1 A
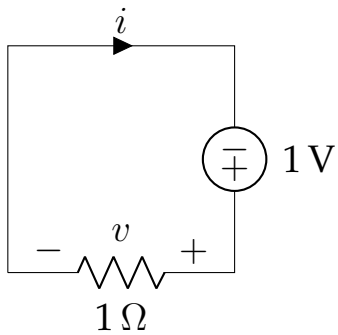
$v =$ +1 V   -1 V $v =$ +1 V   -1 V

$i =$ +1 A   -1 A $i =$ +1 A   -1 A

$v =$ +1 V   -1 V $v =$ +1 V   -1 V

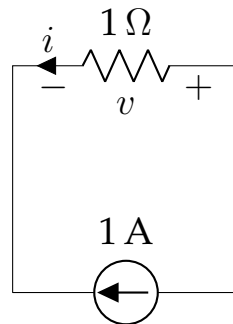$i =$ +1 A   -1 A $i =$ +1 A   -1 A
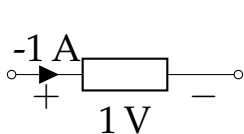
$v =$ +1 V   -1 V $v =$ +1 V   -1 V
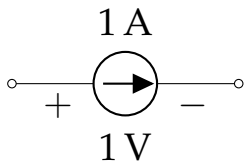
1

2. For each element below, assume it is connected to an external circuit network. Is power flowing *from the external circuit* to the element, or *from the element* to the external circuit, or is it impossible to say with the given information? Circle one option for each element:
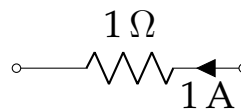
-1 A
+ 1 V −

1 A
+ 1 V −

1 Ω
1 A

from ext. circuit

from ext. circuit
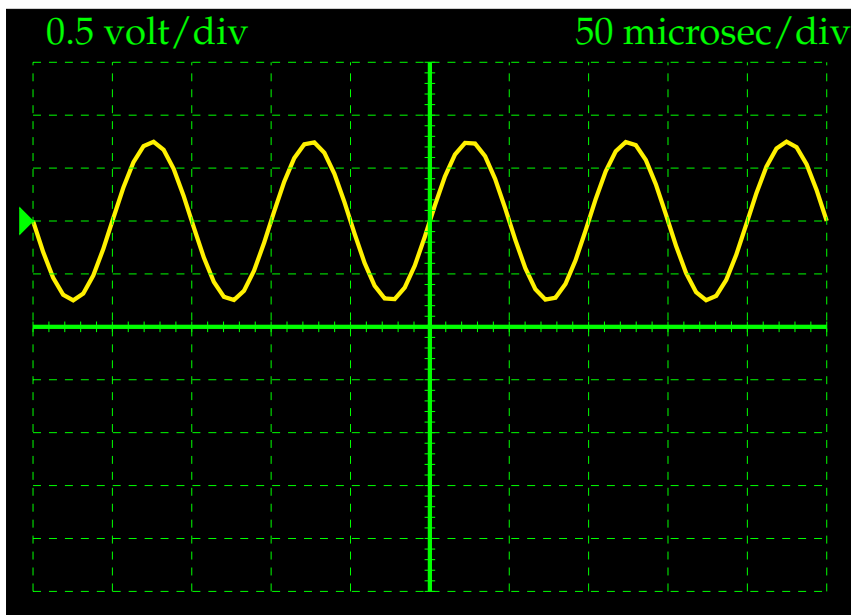
from ext. circuit

to ext. circuit

to ext. circuit

to ext. circuit

can't say

can't say

can't say

3. Provide the requested information for the voltage-time oscilloscope trace shown below:

0.5 volt/div   50 microsec/div

What is the period of the signal, with units?

What is the frequency of the signal, with units?

What is Vpp the peak-to-peak voltage of the signal, with units?

What is the offset of the signal, with units?