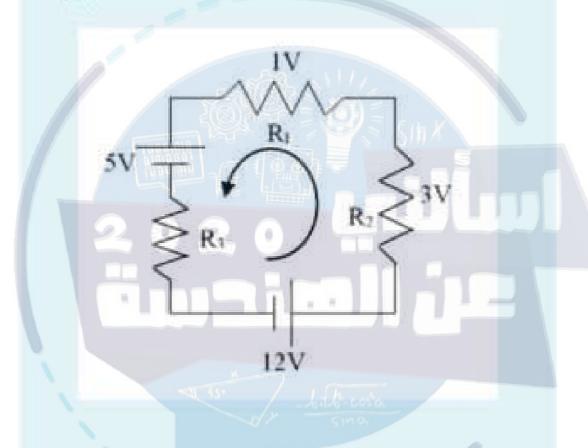


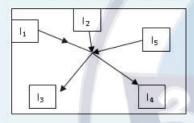
According to Kirchhoff's rules, the reading of a voltmeter (in V) across  $R_3$  in the circuit shown to the right is:



## Select one:

- a. 2
- b. 4
- c. 3
- d. 1

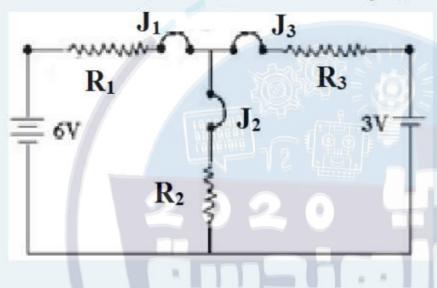
If a section of an electric circuit is as shown, then applying Kirchhoff's first law gives:



- $\bigcirc$   $I_1 + I_3 + I_5 = I_2 + I_4$
- $\bigcirc$   $I_1 + I_3 + I_4 = I_2 + I_5$
- $\bigcirc$   $I_1 = I_2 + I_3 + I_4 + I_5$

Clear my choice

In the circuit shown, to measure the current through R2

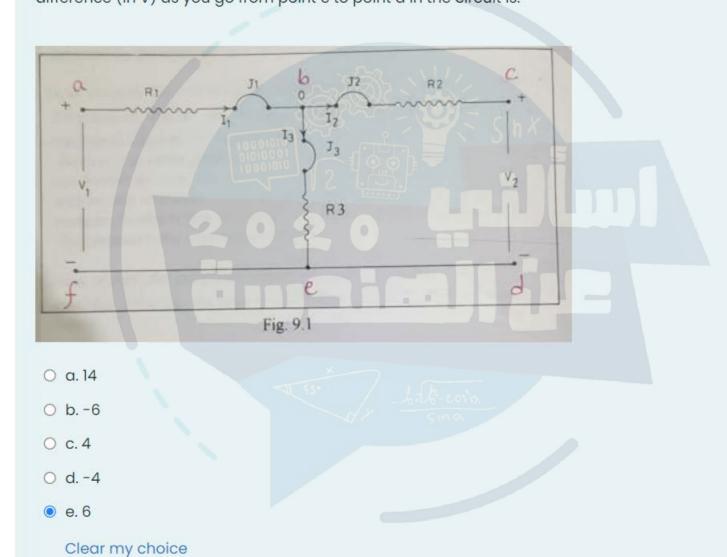


- $\bigcirc$  J<sub>1</sub> is removed, J<sub>2</sub> is plugged in, and J<sub>3</sub> is replaced by an ammeter.
- $^{\bigcirc}$  J<sub>1</sub> is plugged in, J<sub>3</sub> is removed and J<sub>2</sub> is replaced by an ammeter.
- $^{\circ}$  J<sub>1</sub> and J<sub>2</sub> are plugged in and J<sub>3</sub> is replaced by an ammeter.
- J<sub>1</sub> and J<sub>3</sub> are removed and J<sub>2</sub> is replaced by an ammeter.
- J<sub>1</sub> and J<sub>3</sub> are plugged in and J<sub>2</sub> is replaced by an ammeter.

Question 1 Not yet answered

Marked out of 4.00

 In the circuit below,  $V_1 = 10 \text{ V}$ ,  $V_2 = 4 \text{ V}$ , and the potential drop across  $R_1$  is measured to be 4 V. The difference (in V) as you go from point c to point a in the circuit is:



## Question 2

Not yet answered

Marked out of 4.00

 In Kirchoff's Rules experiment, suppose you removed jumper J<sub>1</sub> in order to measure the current in resistance R<sub>1</sub>. During the time when J<sub>1</sub> is disconnected and the ammeter is not connected yet, which of the following is true?

- $\bigcirc$  a. All the currents  $I_1$ ,  $I_2$ , and  $I_3$  have the same values as before disconnecting  $J_1$ .
- b. The potential drops across resistors R<sub>2</sub> and R<sub>3</sub> do not change as a result of disconnecting J<sub>1</sub>.
- O c. There is no current in R<sub>1</sub> and the currents I<sub>2</sub> and I<sub>3</sub> are different from their values before disconnecting J<sub>1</sub>.
- $\bigcirc$  d. The currents  $I_2$  and  $I_3$  are not affected by disconnecting  $J_1$ .
- e. I<sub>1</sub> has the same value as before disconnecting J<sub>1</sub> but I<sub>2</sub> and I<sub>3</sub> are different from their values before
  disconnecting J<sub>1</sub>.

Clear my choice