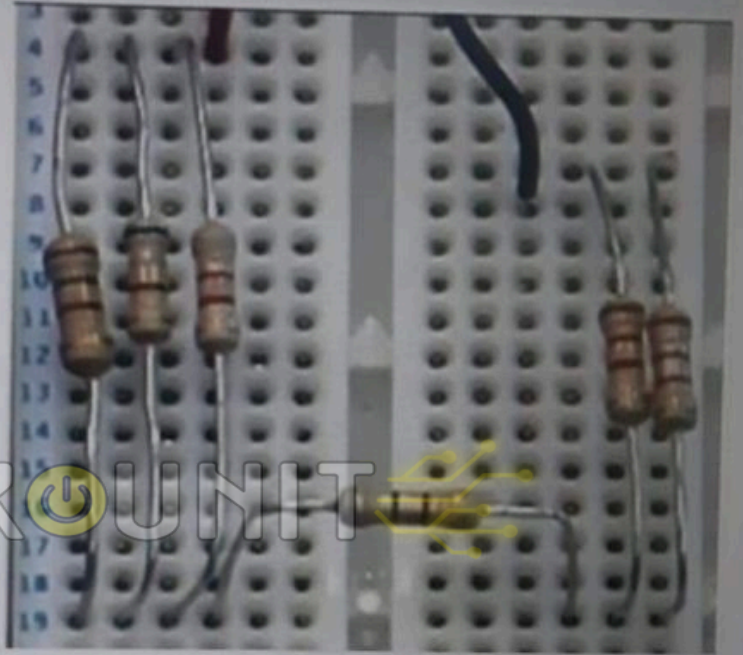
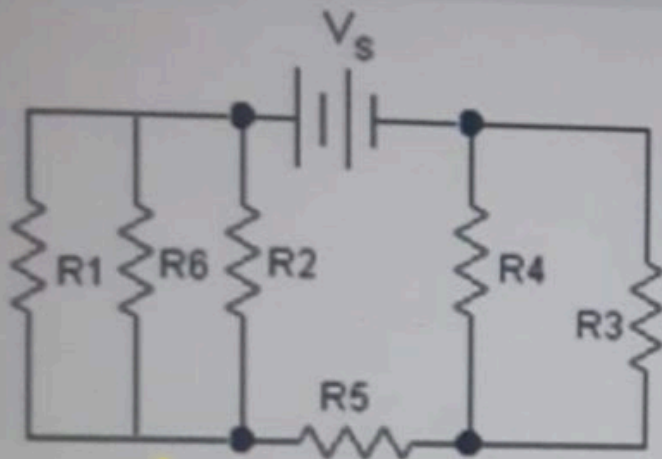


this circuit. Answer the following:



POWERUNIT

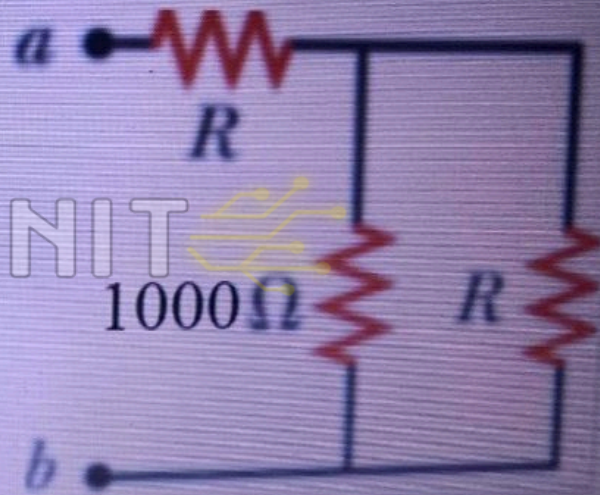
4

Is the shown circuit built correctly?  
(2 Points)

- Yes
- No

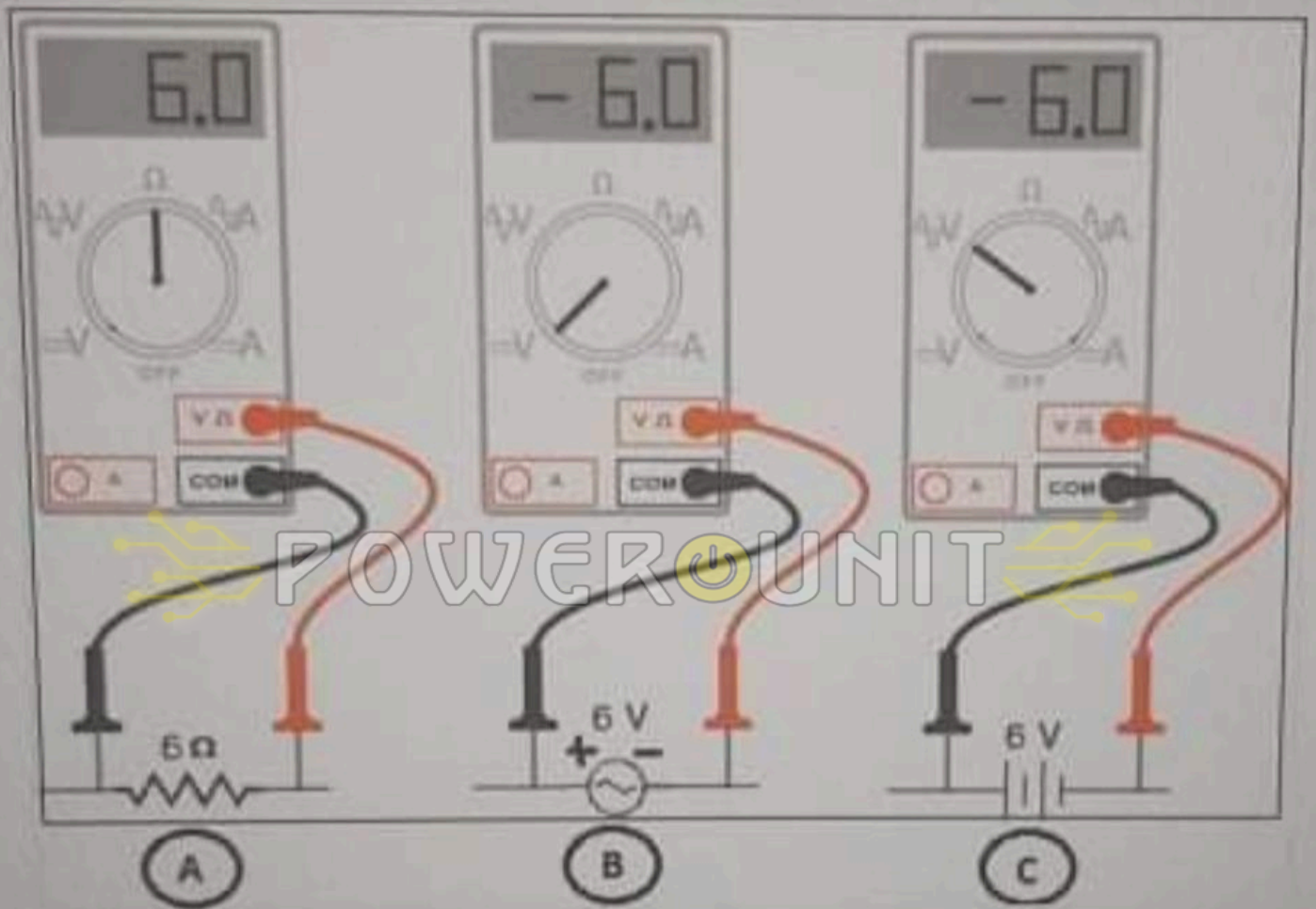
For the circuit shown, if the resistor  $R = (\text{Brown, Black, and Red})$ , then the equivalent resistance (in ohm) between the terminals  $a$  and  $b$  is (ignore the tolerance):  
 (2 Points)

Black	0	Blue	6
Brown	1	Violet	7
Red	2	Grey	8
Orange	3	White	9
Yellow	4	Gold	$\pm 5\%$
Green	5	Silver	$\pm 10\%$



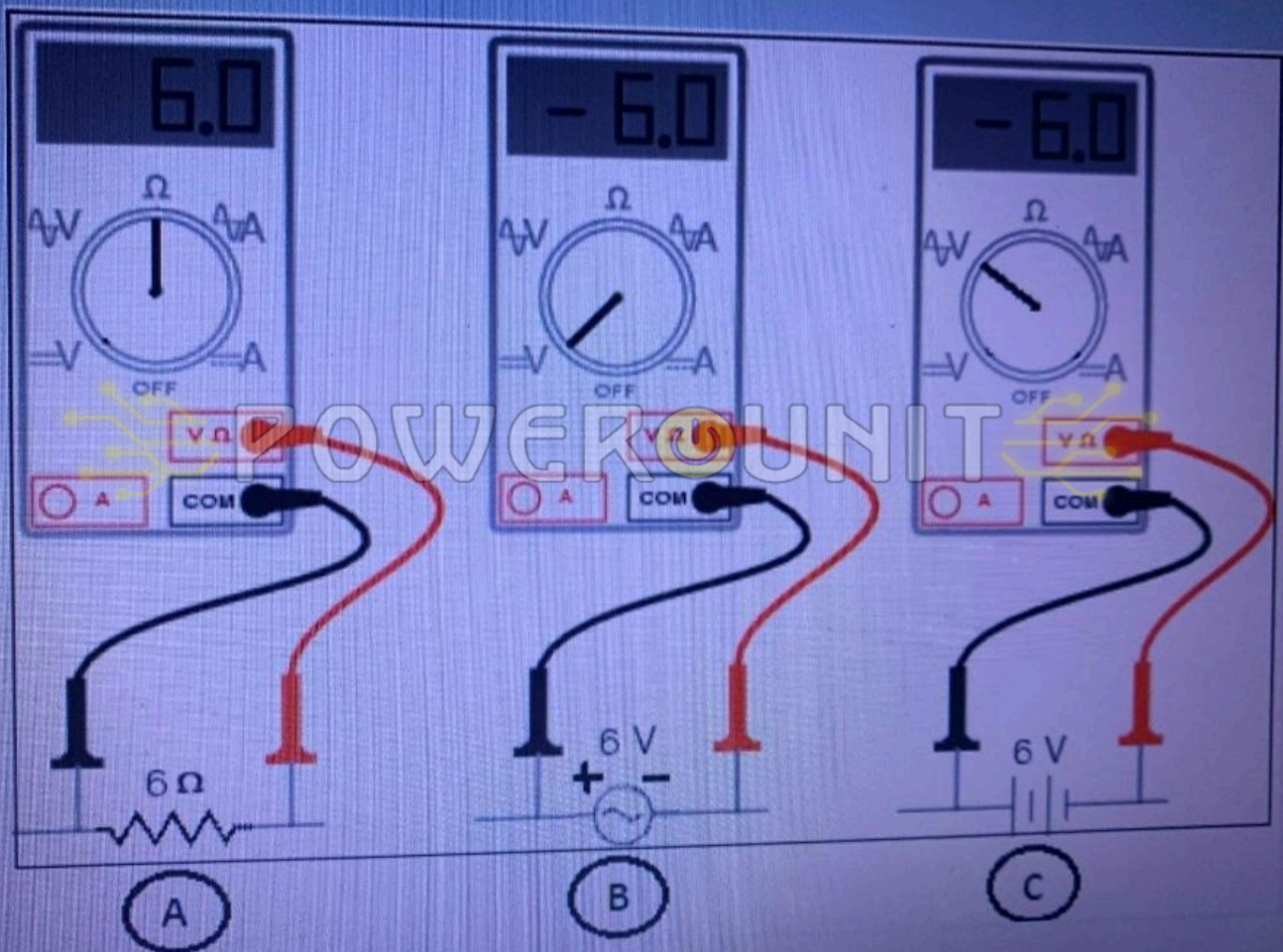
1500 ohm |

One of the following figures has either correct connection or reading. Which is that? (2 Points)

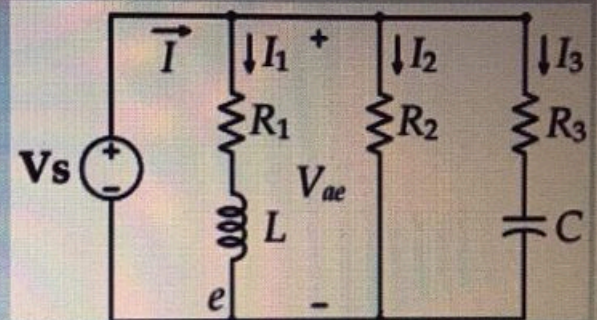


- A
- B
- C
- None is correct

One of the following figures has either correct connection or reading. Which is that?  
(2 Points)



7



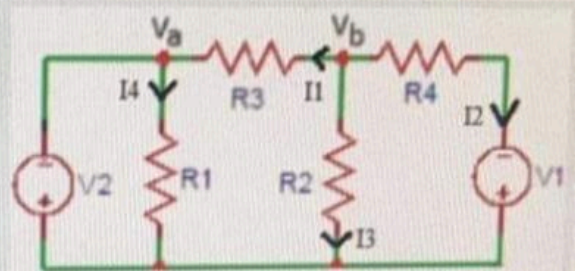
Adding another Inductor ( $L$ ) in series with  $R_2$  (in the circuit shown next) will:  
(2 Points)

POWERUNIT

- make no changes to the total current ( $I$ )
- decrease the value of the current ( $I_1$ )
- increase the value of the current ( $I_3$ )
- make the current ( $I_2$ ) equal to zero
- increase the value of the current ( $I_2$ )

8


A student wrote the Nodal equation at node ( b ) for the circuit shown here (as shown below it), the missing term in the box is:  (2 Points)



$$\frac{V_b}{R2} + \frac{V_b + V_1}{R4} + \boxed{\phantom{0}} = 0$$

- None of the above
- $(V_b - V_2) / R3$
- $(V_b - V_1) / R4$
- $(V_b + V_1) / R4$
- $V_b / R3$

12

To find the Norton resistor of a circuit, we had to short all the current sources and open all the voltage sources. 

(1 Point)

POWERUNIT

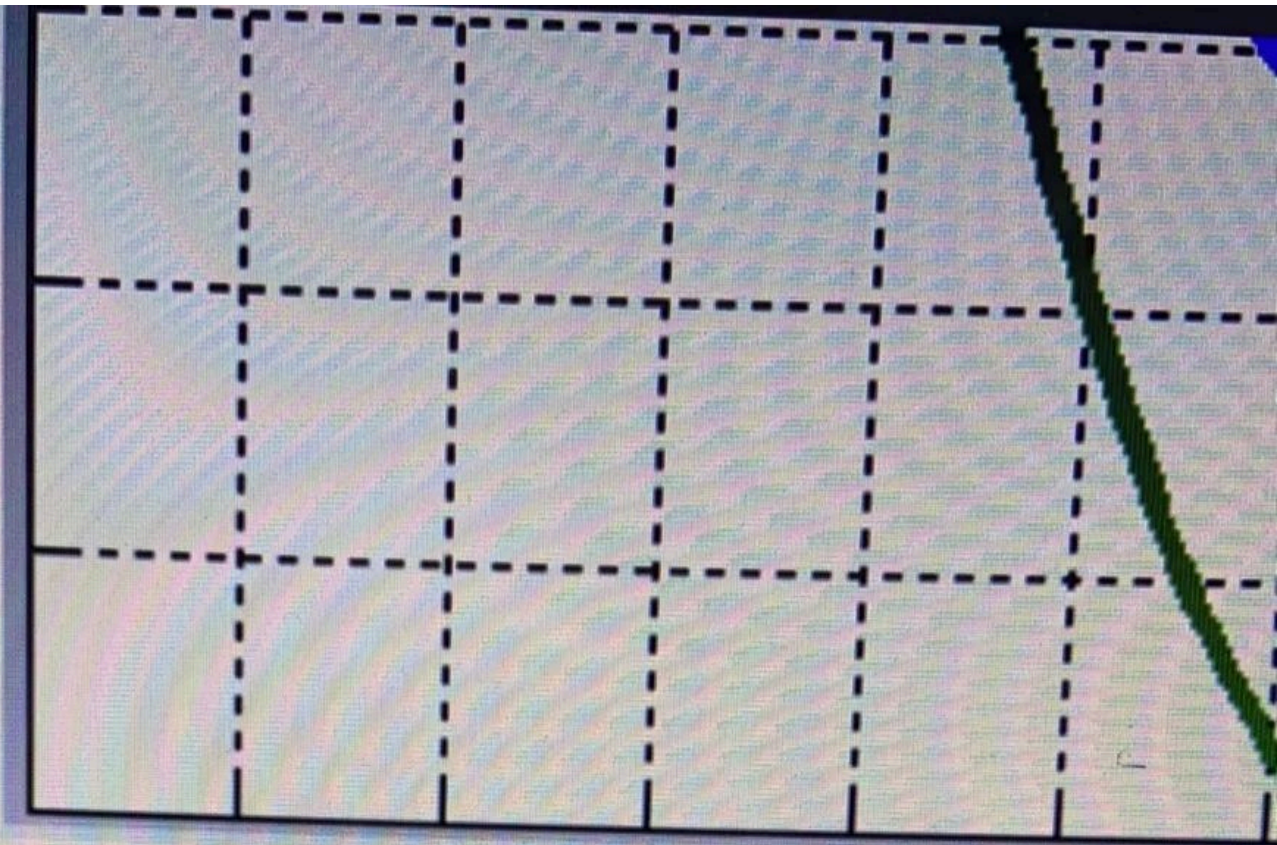
True

False

Back

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## POWERUNIT

The time/Div scale (in msec/div) will be:

(2 Points)

0.0167 ms | I

14

In the oscilloscope device, the knob that determines number of divisions on the screen is :

(1.5 Points)



14

In the oscilloscope device, the knob that determines number of the screen is :

(1.5 Points)

- Volt per Div
- Vertical position
- Horizontal position
- Time per Div

POWERUNIT

15

The rms value (in volt) for the CH2 signal is approximately:

(2 Points)

2.57

I

CH2 lead CH1 .  
(1 Point)

- True
- False
- Can't be determined

POWERUNIT

17

The phase angle (in degree) between the two signals is:  
(1.5 Points)

28.8 |

I