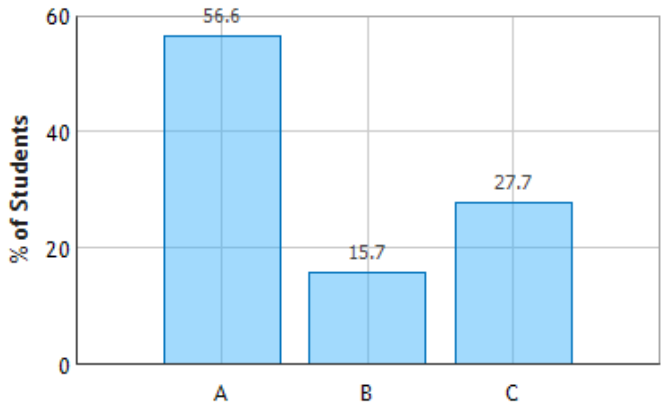
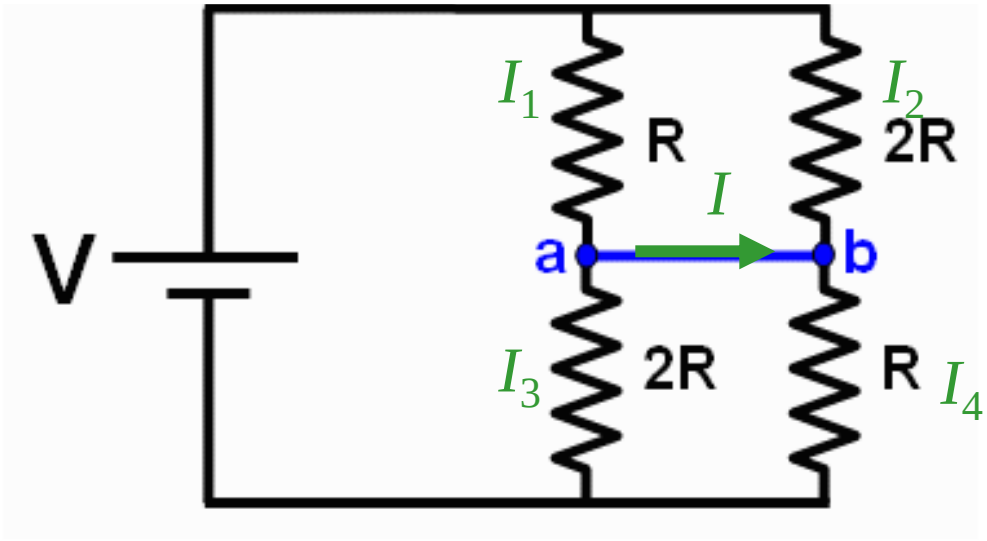
# CheckPoint 3a

Consider the circuit shown below. Note that this question is *not* identical to the similar looking one you answered in the prelecture.




Which of the following best describes the current flowing in the blue wire connecting points **a** and **b**?

**A.** Positive current flows from *a* to *b*

**B.** Positive current flows from *b* to *a*

**C.** No current flows between *a* and *b*

$I_1 R - I_2 (2R) = 0 \rightarrow I_2 = \frac{1}{2} I_1$

$I_4 R - I_3 (2R) = 0 \rightarrow I_4 = 2 I_3$

$I = I_1 - I_3$

$I + I_2 = I_4 \rightarrow I_1 - I_3 + \frac{1}{2} I_1 = 2I_3 \rightarrow I_1 = 2I_3 \rightarrow I = +I_3$