

## Sc!ence

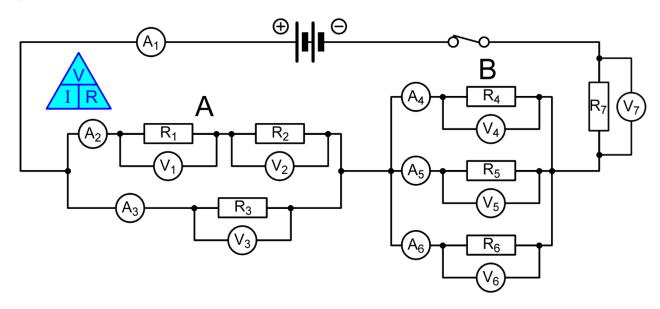
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## **Resistors in Series and Parallel - Complex**

## **Question One:**



 $Battery = 26 \ V \quad R_1 = 25 \ \Omega \quad R_2 = 50 \ \Omega \quad R_3 = 40 \ \Omega \quad R_4 = 80 \ \Omega \quad R_5 = 10 \ \Omega \quad R_6 = 5 \ \Omega \quad R_7 = 100 \ \Omega$ 

- (a) Calculate the resistance through part **A** and part **B** of the circuit, and hence calculate the total resistance through the circuit, *i.e.* the value for R<sub>e</sub>.
- (b) Calculate the current through the main circuit, i.e. the value on A<sub>1</sub>.
- (c) Calculate the potential difference across part **A** and across part **B** of the circuit, and across  $R_7$  (*i.e.* the reading on  $V_7$ ).

Calculate the current across R <sub>1</sub> to R <sub>6</sub> , <i>i.e.</i> the readings on A <sub>2</sub> to A <sub>6</sub> .
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• Scan the QR code below for the answers to this assignment.



http://www.nygh.sg/lower\_secondary\_science/sec\_two\_science/sec\_two\_physics/resistors\_complex\_answers.pdf