

From the experiment, we learned how to use a Wheatstone bridge to find the value of an unknown resistor and why this method is better than using Ohm's law. The ideal resistor of the ammeter has a very small value, close to zero. Similarly, we plotted a graph relating the division (d) on the scale to the corresponding measured value of potential difference (V_{com}). Multiplying the division by the slope allowed us to determine the home voltmeter reading (V_{hm}) and assess the error between V_{hm} and the measured value. We then plotted a graph correlating the division (d) on the scale with the corresponding reading on a commercial ammeter. The slope of the graph, denoted as K_A , was determined to be 0.045..