

## Wheatstone bridge

Lab-report in Physics  
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The aim of this experiment is to find the resistance of a resistor with the use of the Wheatstone bridge. For this experiment we need:

- one resistor (  $8 \Omega$  )
- three potentiometers
- one battery
- one galvanometer
- one unknown resistor

and some wires.

We then connected the components as shown in the figure below (fig 1).

We know that  $R_3$  is  $8\Omega$ , and we set the two other potentiometers to  $41.7\Omega$  ( $R_2$ ) and  $58.3\Omega$  ( $R_1$ ). And then we just have to calculate:

$$R_4 = R_3 * R_1 / R_2 = 8 * 58.3 / 41.7 = 11.18\Omega$$

