

# Worksheet |

Lower Secondary  
Stage (6-8)

1<sup>st</sup> Semester | 2023-2024

Name: \_\_\_\_\_

**Subject:** Physics

**Topic:** Ohm's Law

**Objectives:**

- To be able to solve different word equations regarding Ohm's Law

---

Using Ohm's Law solve the following problems.

- 1) What is the resistance of a component if the current going through it is 36A and the voltage across it is 12V?
  
  
  
  
  
  
  
  
  
  
- 2) What is the voltage across a component with a resistance of  $130 \Omega$  that has a current of 2.5A going through it?
  
  
  
  
  
  
  
  
  
  
- 3) What is the current through a component if the component has a resistance of  $4.5 \Omega$  and the voltage across the resistor is 60V?
  
  
  
  
  
  
  
  
  
  
- 4) If the current through a  $10\Omega$  component is 16A, what is the voltage across the component?

- 5) What voltage is necessary to produce a current of 200 amperes through a component of  $10 \Omega$ ?
- 6) What is the voltage if a resistance of  $25 \Omega$  produces a current of 250 amperes?
- 7) What is the current produced by a voltage of 240 V through a resistance of  $0.2 \Omega$ ?
- 8) What voltage is necessary to produce a current of 200 amperes through a resistance of  $100 \Omega$ ?
- 9) What resistance would produce a current of 120 amps from a 6 V battery?
- 10) What is the current produced by a 9V battery flowing through a resistance of  $200 \Omega$ ?