

Multiple Formulas Notes

Potential difference	Power	Energy 1	Energy 2

1. What is the power of an appliance if it works on 2.5 A and has a 5 Ω resistor?
2. What is the resistance of a resistor if it uses 220 V and 300 W of power?
3. What is the resistance of a resistor if a circuit is on for 20 minutes, used 20 000 J of energy and had 4 A?
4. What is the resistance of a resistor if a circuit is on for 2 hours, used 50 000 J of energy and 220 V?
5. What is the power of an appliance if it works on 5 A and has a 3.5 Ω resistor?
6. The resistance of a heating element is 10 Ω and the potential difference (voltage) across its terminals is 120 V. This element is used for 3 hours. How much electrical energy was used during this period?
A) 4 320 J B) 259 200 J C) 1440 000 J D) 15 552 000 J