

Worksheet: Thermodynamics

NIOS · Class 11 · Physics · 5 questions · 13 marks

Name: _____

Date: _____

Score: _____ / 13

Q1. A gas absorbs 500 J of heat and does 200 J of work. Find ΔU . [2 marks]

Q2. Why can't a heat engine have 100% efficiency? [2 marks]

Q3. 2 moles of ideal gas expand isothermally at 300 K from 5 L to 15 L. Find the work done ($R = 8.314$). [3 marks]

Q4. A Carnot engine has 40% efficiency with a sink at 300 K. Find the source temperature. [3 marks]

Q5. In a cyclic process a system absorbs 1000 J and rejects 600 J. Find the work done and efficiency. [3 marks]
