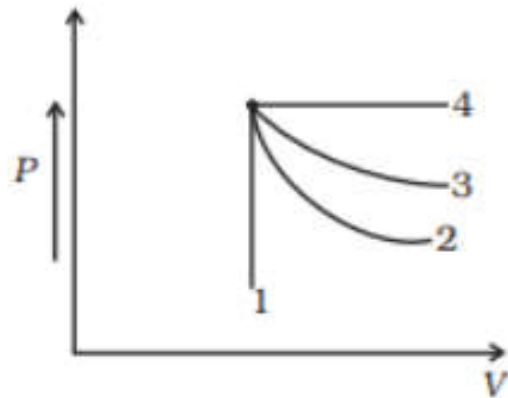


1. An ideal gas undergoes four different processes from the same initial state (Fig.). Four processes are adiabatic, isothermal, isobaric and isochoric. Out of 1, 2, 3 and 4 which one is adiabatic.



- 1) 1
- 2) 2
- 3) 4
- 4) 3

**Sol.** 2) 2

During an adiabatic process, no heat is transferred to the gas, but the temperature, pressure and volume of the gas changes.

The curve on a p-v diagram is equal to the work performed by a gas during the process.

∴ curve 2 shows the adiabatic process.