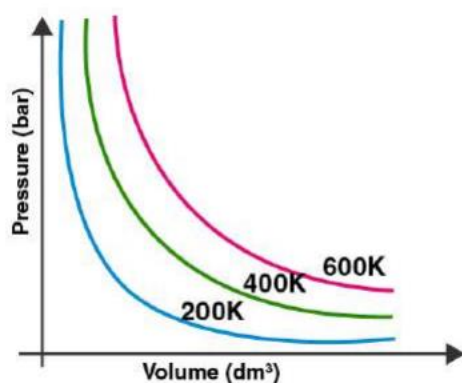


Question 7

The variation of pressure with the volume of the gas at different temperatures can be graphically represented as shown in Fig. Based on this graph answer the following questions.

- (i) How will the volume of a gas change if its pressure is increased at constant temperature?
- (ii) At constant pressure, how will the volume of a gas change if the temperature is increased from 200K to 400K?



Solution:

- (i) As the temperature is constant, and the pressure is increasing the change in the volume is seen as decreasing exponentially.
- (ii) (ii) At the constant pressure, by increasing temperature the volume of gas increases