



Practice

1. What is the work done by the gas at constant pressure 0,15 MPa if its volume increases by 2,01.
2. What is the work done by the gas if its initial volume 0,2 m³ at constant pressure 0,5 MPa increases three-times?
3. Mass of hydrogen is 5 kg and its temperature is 0°C. How is its temperature at isobaric process changed if the gas does a work of 37,4 kJ?

4. The pressure of air in a car tyre is 1.9×10^5 Pa at 18°C . Assuming that the volume of the tyre is constant. What will the pressure of tyre be at 25°C ? By how much does the pressure of the tyre increase for every $^\circ\text{C}$ rise in temperature.

5. A gas occupies a volume of 6×10^{-3} m³ and exerts a pressure of 80 kPa at a temperature of 20°C . What pressure does it exert if:

a) the temperature is raised to 40°C

b) the volume is halved

c) the volume is changed to 7.7×10^{-3} m³ and the temperature becomes 57°C .