Answer on Question# 40673, Physics, Molecular Physics Question:
THE FRACTIONAL CHANGE IN INTERNAL ENERGY WHEN A GAS
IS COOLED FROM 927 C TO 27 C IS :1. 0.25 2. 0.75 3. 1 4. 0.67
Solution. The formula for internal energy of the gas is

$$U = \hat{c}_V nRT$$

where T is temperature is kelvins. Hence, the change is

$$\frac{\Delta U_2}{\Delta U_1} = \frac{T_2}{T_1} = \frac{273 + 27}{273 + 927} = 0.25$$