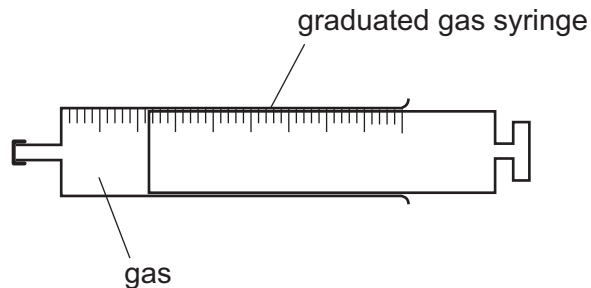


15 A gas is contained inside a sealed syringe, as shown.



The volume of gas at room temperature is 2.0 cm^3 .

Atmospheric pressure is 101 kPa .

What is the work done by the gas when it is heated and expands to a volume of 6.0 cm^3 ?

A $404 \mu\text{J}$

B 404 mJ

C 404 J

D 404 kJ