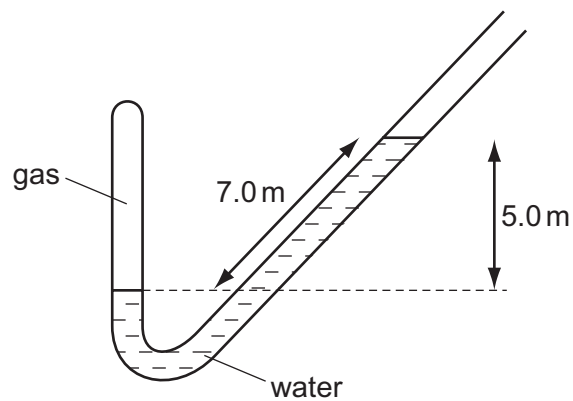23 A pipe is closed at one end and contains gas, trapped by a column of water.

The atmospheric pressure is 1.0×10^5 Pa. The density of water is $1000\,\text{kg}\,\text{m}^{-3}$.

What is the pressure of the gas? (Use $g = 10\,\text{m}\,\text{s}^{-2}$.)

A 0.3×10^5 Pa

B 0.5×10^5 Pa

C 1.5×10^5 Pa

D 1.7×10^5 Pa

Space for working