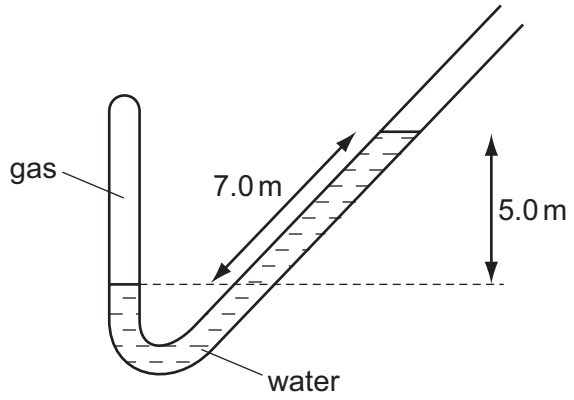
23 A pipe is closed at one end and contains gas, trapped by a column of water.



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

What is the pressure of the gas? (Use g = 10 m 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