13 A small bubble of air of volume 1.00 cm^3 rises to the surface from the bottom of a lake. The temperature of lake at the bottom of the lake is found to be 15.0 °C.

With the volume of air bubble, atmospheric pressure and temperature at the water surface as 5.00 cm^3, 1.00 x 10^5 Pa and 30.0 °C respectively, what is the change of pressure exerted on the bubble as it rises from the bottom of lake to surface? Assume that air in bubble behave as an ideal gas.

A 250 kPa **B** 375 kPa **C** 475 kPa **D** 526 kPa