13 Planet Z has a mass 6.4×10^{23} kg and a diameter of 6.8×10^{3} km.

Assuming helium-4 to be an ideal gas, what is the minimum temperature of the helium-4 gas for it to be able to escape from the surface of Planet Z?

A 2.0×10^{3} K

B 2.1×10^{3} K

C 4.0×10^{3} K

D 4.1×10^{3} K