7 A 3.50 g balloon is filled with helium (density = 0.180 kg m^{-3}) to a volume of 5.00 m^3 and is then connected to the top of a table via a light spring of spring constant 100 N m^{-1}. The balloon causes the spring to stretch.

What is the extension of the spring when the balloon is in equilibrium given that the density of air is 1.29 kg m^{-3}?

A   0.055 m

B   0.201 m

C   0.544 m

D   0.632 m