

3. A sealed cylinder contains a sample of ideal gas at a pressure of 2.0 atmospheres. The rms speed of the molecules is  $v$ . If this rms speed is then reduced to  $0.70 v$ , what will be the new pressure of the gas?

A. 1.5 atm

B. 0.70 atm

C. 0.98 atm

D. 0.49 atm

E. 2.0 atm

F. Not close to any of the above

Ans. \_\_\_\_\_