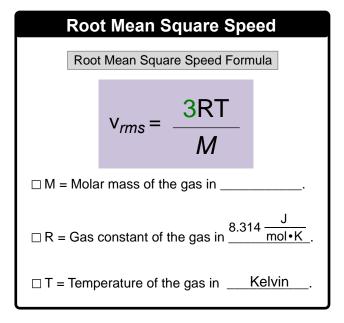
CONCEPT: ROOT MEAN SQUARE SPEED

• The Root Mean Square Speed (v_{rms}) formula is used to determine the velocity of _____ type(s) of gas molecules.



EXAMPLE: Calculate the *rms* speed of NH₃ molecules at 50 °C.

PRACTICE: Determine which gas would have a root mean square speed of 515.59 m/s at 405 K.

- a) Cl₂
- b) CO₂
- c) F₂

- d) NH₃
- e) CH₄

PRACTICE: The root mean square speed of gas molecules is 283.0 m/s at a given temperature *T* when the recorded molar mass is 42.0 g/mol. What would be the root mean square speed for a gas with a molar mass of 152.0 g/mol?