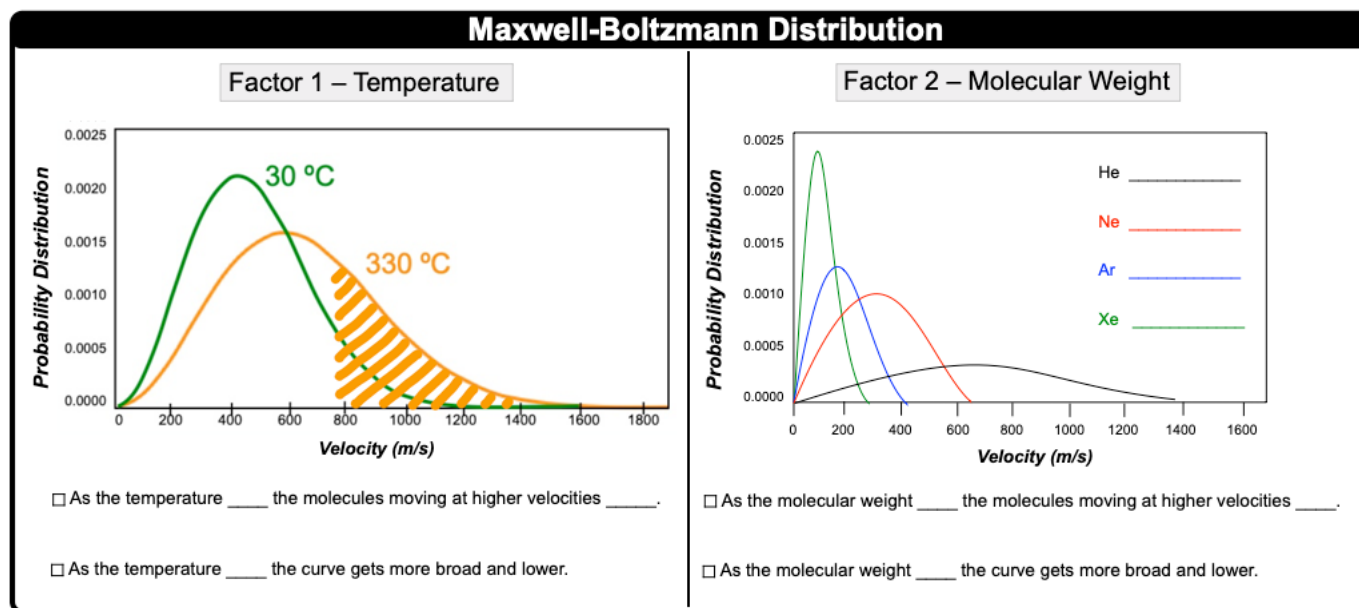


CONCEPT: VELOCITY DISTRIBUTIONS

- The shape of the *Maxwell-Boltzmann Distribution* curve is dependent on both temperature and molecular weight.



EXAMPLE: The graph illustrated below shows the distribution of molecular velocities. How many of the following statements is/are true?

- At a given temperature, curve A is measured at the highest temperature.
- For a given gas sample, curve C represents gas molecules with the smallest molar mass.
- For a given gas sample, curve C represents gas molecules with the highest molar mass.
- For a given gas sample, the more narrow the velocity distribution, the lower the temperature.

a) 0 b) 1 c) 2 d) 3 e) 4

