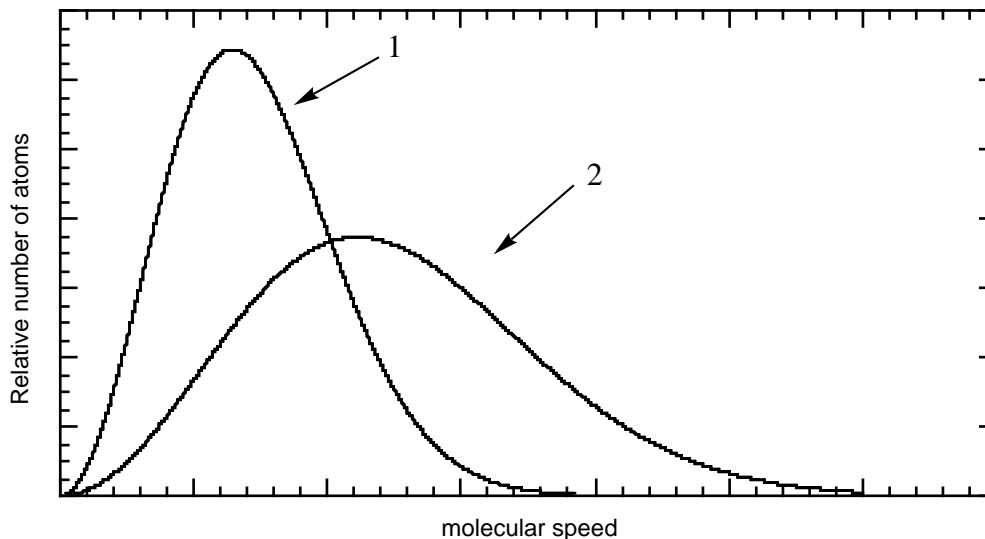


**Problem of the Day 5 CHEM 1252**

1. The graph below shows the distribution of speeds for argon and helium at the same temperature. Answer the following questions.



(a) Does curve 1 or 2 better represent the behavior of argon?

<i>(Circle One)</i>	<i>Justification</i>
Curve 1	
Curve 2	
	2

(b) Which curve represents the gas that would diffuse faster?

<i>(Circle One)</i>	<i>Justification</i>
Curve 1	
Curve 2	
	2

2. Calculate the total pressure (in atm) of a mixture of 0.0200 mol of He and 0.0100 mol of H<sub>2</sub> in a 5.00 L flask at 10.0°C.

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3. If the volume of 2.67 g of SF<sub>6</sub> at 1.143 atm and 28.5°C is 2.93 m<sup>3</sup>, what will be the mass of SF<sub>6</sub> in a container whose volume is 543.9 m<sup>3</sup> at 1.143 atm and 28.5°C?

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