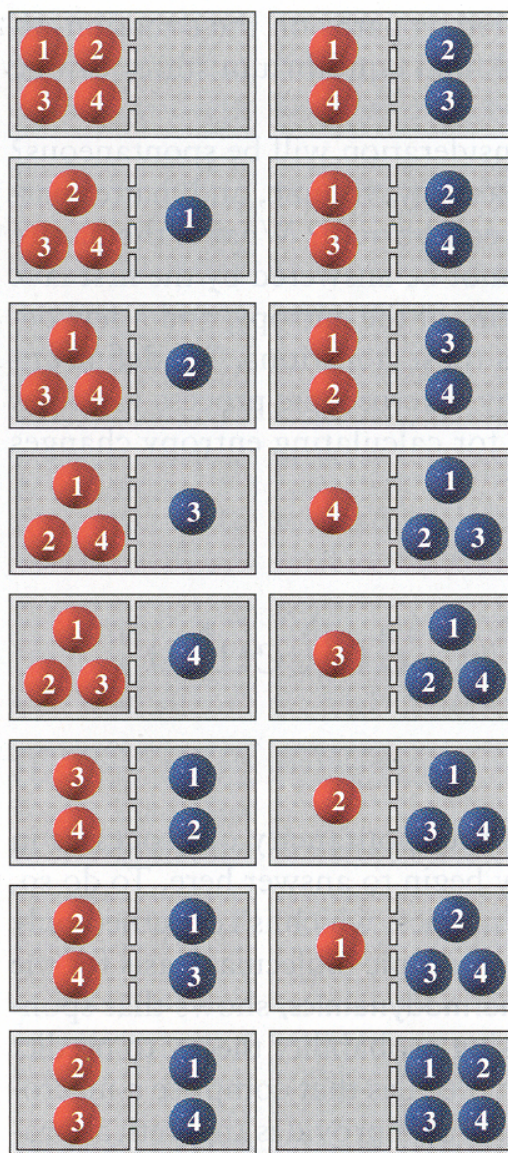


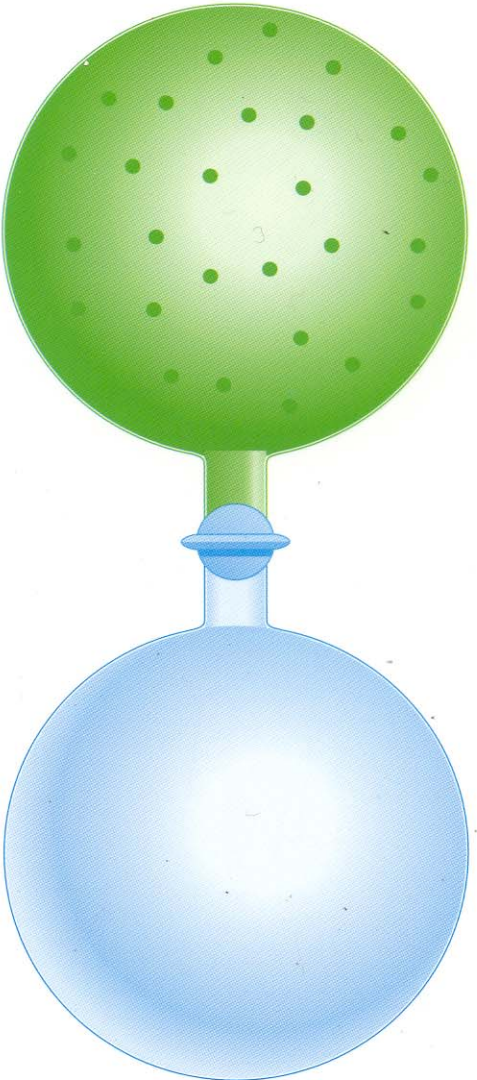
Entropy and Volume: A Microscopic Example

Initial State: Assume there is only one way for four molecules to occupy one side of a box (like, the box is really small!)

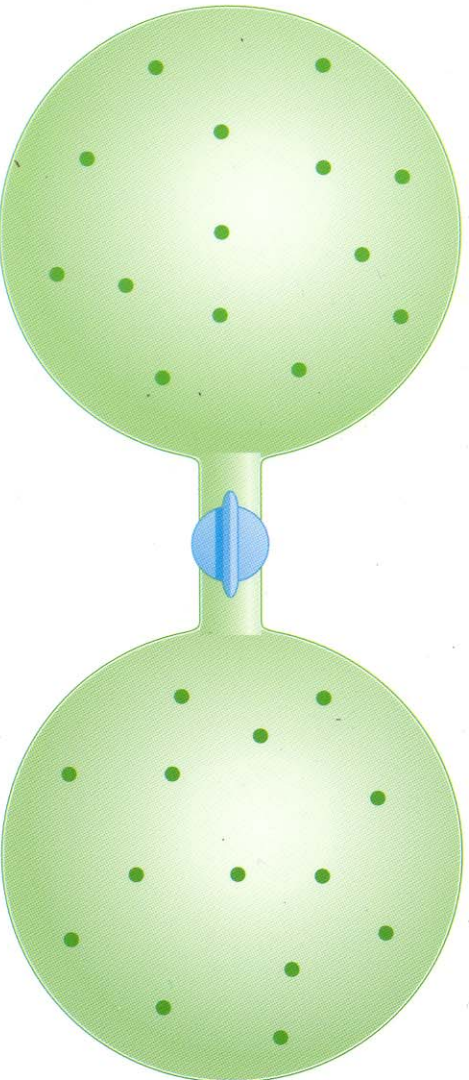
Final State: Now double the volume available to the four molecules. Assume the box is isolated from its surroundings.



from David W. Oxtoby, H. P. Gillis, Alan Campion. *Principles of Modern Chemistry*, 6th ed., Thomson Brooks/Cole: Belmont, CA, 2008.



(a)



(b)