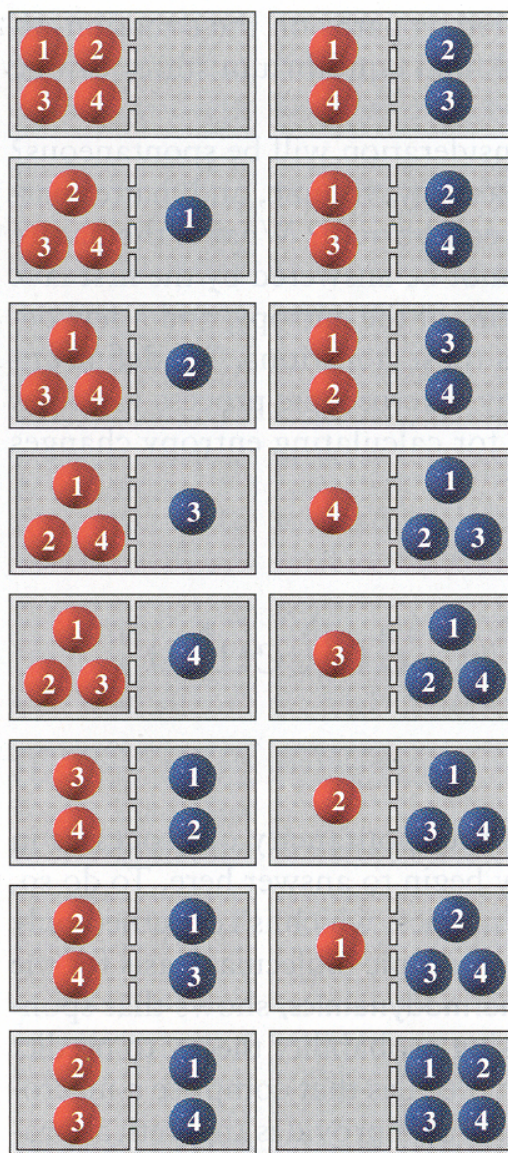


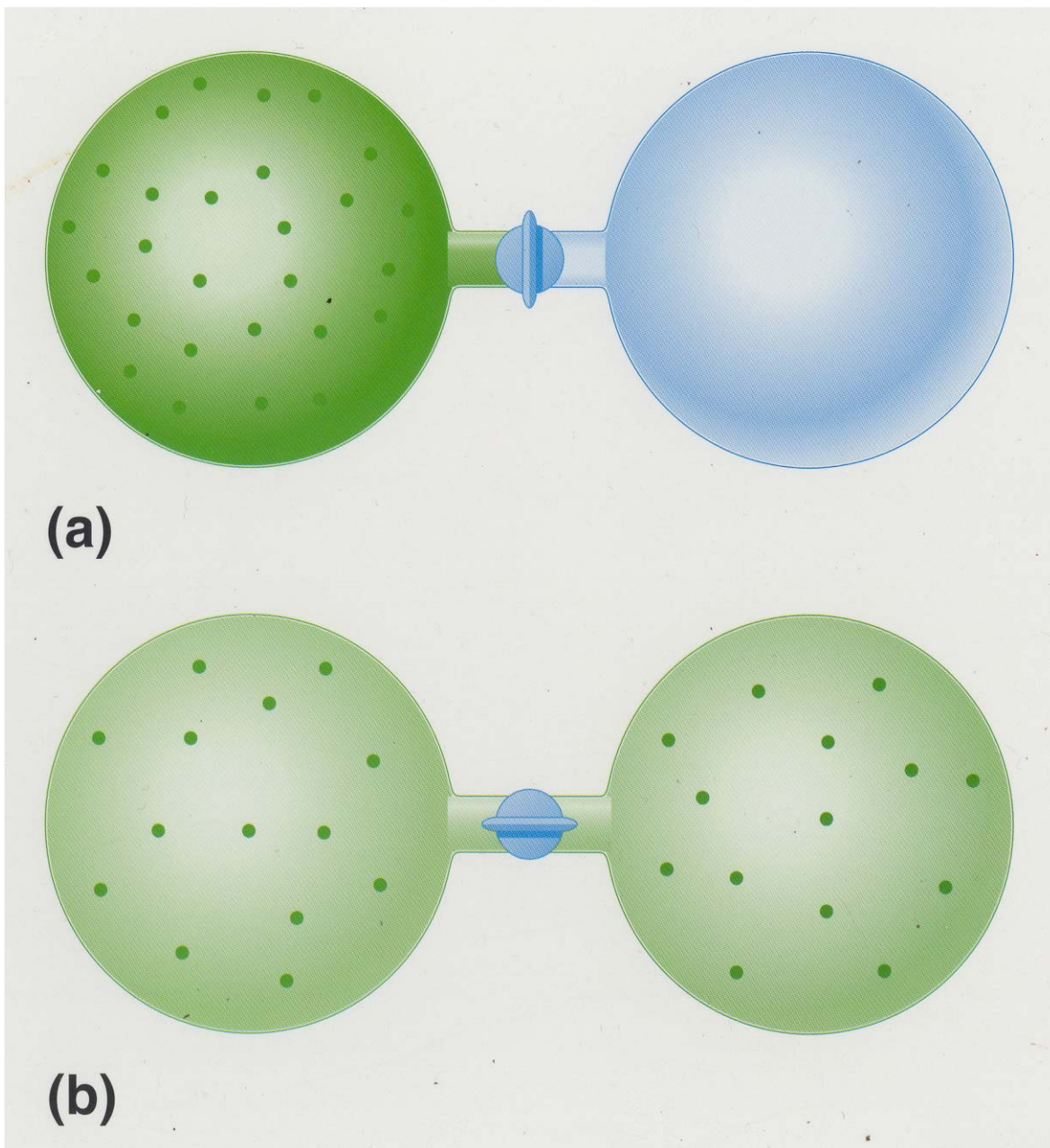
## A Microscopic View of Entropy

Initial State: Assume there is only one way for four molecules to occupy a box.

Final State: Now double the volume of the box isothermally (that is, with no change in internal energy):



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



from David W. Oxtoby, H. P. Gillis, Norman H. Nachtrieb. *Principles of Modern Chemistry*, 4th ed., Saunders: Fort Worth, TX, 1999.