Due Friday, February 1

1. DVS: 1.53 (p. 36)
2. DVS: 2.6 (p. 55)
3. DVS: 2.8 (p. 59)
4. DVS: 2.19 (p. 64) (You are asked to compare with the solution to problem 2.17 which is: $\Omega = (e \frac{N}{q})^q$).
5. DVS: 2.24 (a-c) (p. 67)
6. Google "quincunx" (pronounced "kwinkunx") and read about it. Find a quincunx simulator on the web and run it for at least 1000 balls and record the final distribution values (i.e. the number of balls as a function of the number of bins away from the central bin).
   a) Compare your simulator values with what you would expect from the binomial distribution.
   b) Fit your quincunx values to a normal distribution and compare with what you would expect following the same reasoning as in problem 2.24(c). Plot your simulator values along with the normal distribution fit.