Outline for March 9, 2012

1. Recursion review
   a. Base case: \texttt{high < low}, return failure; \texttt{word == list[mid]}, return \texttt{mid}
   b. Recursive part: if \texttt{word < list[mid]}, search interval \texttt{0 ... mid-1}; if \texttt{word > list[mid]}, search interval \texttt{mid+1 ... high}

2. Example: binary search [\texttt{rbinssearch.py}]
   a. Base case: \texttt{high < low}, return failure; \texttt{word == list[mid]}, return \texttt{mid}
   b. Recursive part: if \texttt{word < list[mid]}, search interval \texttt{0 ... mid-1}; if \texttt{word > list[mid]}, search interval \texttt{mid+1 ... high}

3. Example: Tower of Hanoi [\texttt{hanoi.py}]
   a. The story
   b. Base case: 1 disk, just move it
   c. Recursive part: move \texttt{n - 1} disks to second pole, move bottom disk to third, move disks on second pole to third
   d. Show stack for 3 disks

4. Example: reverse string [\texttt{reverse.py}]
   a. Base case: empty string
   b. Recursive part: \texttt{reverse(s): reverse(s[1:]) + s[0]}