Unix Command Review:

cd   = change to a new directory
      `cd ..` = change to the parent directory
      `cd`   = with no arguments means go to your home directory
ls   = list directory contents
sort   = sort intput text lines
      `sort -r` = sort in reverse order
      `sort -n` = sort numerically rather than alphabetically
      `sort -nr` = equivalent to "`sort -n -r`"
uniq   = remove successive duplicate text lines.
      `uniq -c` = count number of occurrences of each line.
awk   = AWK language interpreter (programming language for Humdrum Toolkit).
      `awk '{print $3, $4}'` = print third and fourth words on input lines.

Bash shell for-loop:

      for *item* **in** *.krn
      do
        echo $*item*   # do any command, using $item for each item.
      done

single-line version:
      for item **in** *.krn; **do** echo $item; **done**

Piping output of one command into another:

      List Joplin's most popular key for composing ragtime music:

```
for rag in *.krn; do key $rag; done | \
     awk '{print $3, $4}' | sort \
     | uniq -c | sort -nr | head -1
```

backslash at end of the lines above (with no spaces following it) is used to continue a command onto multiple lines.

New Unix Commands:

pwd   = Present Working Directory: tells you where you are
wc   = count number of lines, words, characters
grep   = General Regular Expression
man   = Manual pages: documentation for unix tools
      (use http://humdrum.org/Humdrum/commands.toc.html
      for Humdrum Toolkit command documentation)
      `man pwd` = show documentation for pwd command.

Humdrum Tool Review:

humdrum = check for conformance to Humdrum file syntax.
key = numerically identify the musical key of a file
  key –a = show all correlation calculation results
  key –f = show measured pitch/duration histogram from file.
  key –h = show brief help. This is true of all Humdrum toolkit programs.

New Humdrum Tools:

scaletype = Counts the number of pitch-classes in a file.
    see http://extra.humdrum.org/man/scaletype
  scaletype *.krn = identify scale type for all .krn files in directory.
  scaletype –p = display
  scaletype –F = don't display filename
extract = Extract a specific spine from a Humdrum file.
  extract –f 1 = extract the first column

Monophonic Songs:

Essen Folksong collection:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/essen
  also in your home directory in scores/folk

American Indian songs collected by Frances Densmore:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/osu/densmore/pawnee
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/osu/densmore/ojibway
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/users/craig/songs/densmore/sioux
  also in your home directory in scores/densmore

Folksongs from Nova Scotia collected by Helen Creighton:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/users/craig/songs/creighton/nova
  also in your home directory in score/nova

Pentatonic Song collection:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/users/craig/songs/pentatonic
  also in your home directory in scores/pentatonic

Harmonized Songs:

German Folksongs collected by Ludwig Erk:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/users/craig/songs/erk/liederschatz
  also in your home directory in scores/liederschatz

Three-chord pieces:
  http://kern.ccarh.org/cgi-bin/ksbrowse?l=/users/craig/songs/threechord
  also in your home directory in scores/threechord