1. **(6.12)** Write function letter2number() that takes as input a letter grade (A, B, C, D, F, possibly with a – or +) and returns the corresponding number grade. The numeric values for A,B,C,D, andFare 4,3,2,1,0. A+ increases the number grade value by 0.3 and a – decreases it by 0.3. Use a dictionary instead of a multiway if statement.
   >>> letter2number('A-') 3.7
   >>> letter2number('B+') 3.3
   >>> letter2number('D') 1.0
2. **(6.13)** Define a dictionary called agencies that stores a mapping of acronyms CCC, FCC, FDIC, SSB, WPA (the keys) to the federal government agencies 'Civilian Conservation Corps', 'Federal Communications Commission', 'Federal Deposit Insurance Corporation', 'Social Security Board', and 'Works Progress Administration' (the values) created by Pres- ident Roosevelt during the New Deal. Then:
   (a) Add the map of acronym SEC to 'Securities and Exchange Commission'.
   (b) Change the value of key SSB to 'Social Security Administration'.
   (c) Remove the (key, value) pairs with keys CCC and WPA.
3. **(6.20)** Write function reverse() that takes as input a phone book, that is, a dictionary map- ping names (the keys) to phone numbers (the values). The function should return another dictionary representing the reverse phone book mapping phone numbers (the keys) to the names (the values).
   >>> phonebook = {'Smith, Jane':'123-45-67', 'Doe, John':'987-65-43','Baker, David':'567-89-01'}
   >>> reverse(phonebook)
   {'123-45-67': 'Smith, Jane', '567-89-01': 'Baker, David', '987-65-43': 'Doe, John'}

4. Write function different() that takes a two-dimensional table as input and returns the number of distinct entries in the table.

   ```
   >>> t = [[1,0,1],[0,1,0]]
   >>> different(t)
   2
   >>> t = [[32,12,52,63],[32,64,67,52],[64,64,17,34],[34,17,76,98]]
   >>> different(t)
   10
   ```

5. At the end of this and other textbooks, there usually is an index that lists the pages where a certain word appears. In this problem, you will create an index for a text but, instead of page number, you will use the line numbers.

   You will implement function index() that takes as input the name of a text file and a list of words. For every word in the list, your function will find the lines in the text file where the word occurs and print the corresponding line numbers (where the numbering starts at 1). You should open and read the file only once.

   ```
   >>> index('raven.txt', ['raven', 'mortal', 'dying', 'ghost', 'ghastly', 'evil','demon'])
   ghost 9
   dying 9
   demon 122
   evil 99, 106
   ghastly 82
   mortal 30
   raven 44, 53, 55, 64, 78, 97, 104, 111, 118, 120
   ```