Last names in the dictionary

Some words in your dictionary also appear as last names in your phone book. For example, "brooks", "brown", "butler", "hall", and "wright" are in your dictionary, and Brooks, Brown, Butler, Hall, and Wright are all common last names in the U.S.

You would like to make a list of *all* such words. The inefficient way would be to go through the dictionary in order: for each dictionary word, you open the phone book, look up that word, add it to your list if you find it as a last name, and close the phone book again.

(a) Why is it more efficient to keep the phone book open between word look-ups?

(b) What if you have a friend to help you (and two copies of the dictionary and phone book)? How can the two of you divide up the work safely and finish twice as fast?

(c) What if there are three of you instead of two?