1. Are the following pairs of English words minimal pairs for the sounds indicated in brackets afterwards? Write 'yes' or 'no'. For those you answer 'no,' provide a minimal pair for the sounds indicated in the brackets.

   a. page/peg [ej/e] ____________________________________________

   b. shelf/shelve [f/v] ____________________________________________

   c. clue/crew [l/r] ____________________________________________

   d. foam/phone [m/n] ____________________________________________

   e. cease/seize [s/z] ____________________________________________

   f. foot/food [t/d] ____________________________________________

   g. cheap/jeep [tʃ/dʒ] ____________________________________________

   h. puke/puck [uw/ɔ] ____________________________________________

2. List the members of the following natural classes of English sounds.

   a. ____________________________________________ alveolar consonants

   b. ____________________________________________ voiced labial consonants

   c. ____________________________________________ high tense vowels

   d. ____________________________________________ low vowels

   e. ____________________________________________ voiced sibilants

3. Describe the following natural classes of English sounds.

   a. ____________________________________________ [r, l]

   b. ____________________________________________ [f, θ, s, ʃ, h]

   c. ____________________________________________ [tʃ, dʒ, ʃ, z, r]

   d. ____________________________________________ [l, ɛ, æ, ə, u, ɔ]

   e. ____________________________________________ [w, j]
4. Identify the natural classes described below.

a. ______________________ The English indefinite article is *a* [a] before most words: *a car, a peanut, a tennis ball*, etc., but is *an* [æn] before words like *apple, onion, icicle, evening, eagle, egg, ape, oak, and honor*. For this second group, consider the first sound in each word. Which natural class do these sounds belong to?

b. ______________________ Some American English speakers (largely in the Midwest and South) pronounce [I] in words like *then, Kenny, pen, Bengal, gem, lengthen, Remington* and *temperature* where other speakers have [ɛ]. What natural class of sounds follows these vowels?

c. ______________________ At some point during a child's language development, he or she might pronounce certain words as follows: *that* [dæt], *these* [diʃ], *this* [dɪʃ] and *three* [frij], *think* [fɪŋk] and *bath* [bæf]. What natural class of sounds is being replaced or altered in the child's speech?

5. The regular English plural suffix, written <-s> or <-es>, has three variant pronunciations: [-ɔz], [-s] and [-z]. The pronunciation of the suffix is dependent upon the final sound of the word which the suffix attaches to. Below are lists of words that occur with each of these pronunciations. For each word given, list the final sound (not letter!) of the unsuffixed word in the left column. An example is done for you.

<table>
<thead>
<tr>
<th>A.</th>
<th>B.</th>
<th>C.</th>
<th>C. (cont.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ bus/buses</td>
<td>[t] cat/cats</td>
<td>___ log/logs</td>
<td>___ sofa/sofas</td>
</tr>
<tr>
<td>___ maze/mazes</td>
<td>___ cop/cops</td>
<td>___ goal/goals</td>
<td>___ lad/lads</td>
</tr>
<tr>
<td>___ crush/crushes</td>
<td>___ lock/locks</td>
<td>___ shore/shores</td>
<td>___ stove/stoves</td>
</tr>
<tr>
<td>___ collage/collages</td>
<td>___ laugh/laughs</td>
<td>___ ring/rings</td>
<td>___ can/cans</td>
</tr>
<tr>
<td>___ crutch/crutches</td>
<td>___ myth/myths</td>
<td>___ cow/cows</td>
<td>___ thumb/thumbs</td>
</tr>
<tr>
<td>___ judge/judges</td>
<td>___ mist/mists</td>
<td>___ tub/tubs</td>
<td>___ sky/skies</td>
</tr>
</tbody>
</table>

You may consider additional regular plurals, which will fall into these three categories. Now, for each pronunciation of the suffix, what is the natural class of the sounds that precede it? In other words, what are the natural classes of the sounds in A, B, and C?