

Homework Assignment #3
Due Thursday October 11th, beginning of class

Name: _____

Question 1: *Voiced or voiceless*

Are the first and last sounds in each of the following words voiced or voiceless? (Be sure to think about the *sounds* not the letters; all vowels (at least in English) are voiced.)

		first sound	last sound
a)	though	voiced	voiced
b)	thought		
c)	form		
d)	laugh		
e)	zoom		
f)	silk		
g)	pan		
h)	boat		
i)	choose		
j)	judge		
k)	hiccough		
l)	fan		
m)	ghetto		
n)	moo		

Question 2: *Articulatory features*

A –

We can describe speech sounds by naming their articulatory properties or features. There are three important articulatory features we can use to describe consonants:

1. The place of articulation (bilabial, dental, velar, etc.)
2. The manner of articulation (stop, fricative, nasal, etc)
3. The state of the glottis – vibrating or not (voiced or voiceless)

For each of the following consonant sounds (as given in the IPA chart), list the specification of their articulatory features. Identify the three features above for each sound: the place, the manner, and the voicing. If you don't remember those specifications, you can find them on the consonant chart of the IPA table you got in class.

	voicing	place	manner
1. [b]	voiced	bilabial	stop
2. [z]			
3. [t]			
4. [n]			
5. [ŋ]			
6. [ð]			
7. [ʃ]			
8. [dʒ]			

B –

Now do the reverse – find the symbols that represent the sound that has the following features

1. voiceless interdental fricative: [θ]
2. voiced bilabial nasal:
3. voiceless alveolar stop:

C –

For each group of sounds below, write down two articulatory features that are shared by all the sounds in the group.

1. [f], [s], [ʃ], [θ]
2. [t], [p], [k]
3. [m], [ŋ], [n]

D –

For each group of sounds below, circle the sound that doesn't "belong" to the group. Then, list (all) feature(s) the other sounds share that the circled one doesn't have.

1. [f], [b], [t], [g]

2. [b], [m], [s], [l]

3. [f], [s], [d], [ʃ]

4. [d], [n], [p], [r]

Question 3: *Minimal pairs*

In phonetics and phonology, a minimal pair is a set of two words that differ in only one sound in the same position, for instance 'pit' [pɪt] and 'bit' [bɪt] or 'hit' [hɪt] and 'hat' [hæt].

For each of the following pairs of English consonants, provide minimal pairs. Try to find at least two pairs of words, where the sound occurs in different positions (in the beginning of the word, the mid, or the end).

	Initial	Medial	Final
[s] / [z]	Sue/zoo	buses/buzzes	peace/peas

[k] / [g]

[ʃ] / [z]

[m] / [n]

For the following minimal pairs, (i) give the IPA symbols for the contrasting sounds (not the letters!) and (ii) identify the articulatory feature(s) that differentiate the two sounds.

(i) sounds that differ (ii) feature(s) that differ between the two sounds

vat/that [v], [ð] place of articulation

sin/sing

cheap/sheep

pit/pick

rocks/box

dig/gig

many/penny

Question 4: *Allomorphy*

With your newly gained knowledge of phonetics, can you explain which allomorph is chosen when in the following set of data that we saw before:

impossible, inalienable, intolerant, incompatible, implausible, impeccable, immature, imbalance, incalculable, inaccessible, intemperate, ...