

**Problem Set # 3**

Name in IPA: \_\_\_\_\_

**A. (18 points)** The following data are from Indonesian. The prefix in the second column has a range of functions, among them, it places focus on the agent ('doer') of a verb, derives transitive or causative verbs, and derives verbs from nouns.

	<i>simple form</i>	<i>prefixed form</i>	<i>gloss</i>
1	lempar	mələmpar	throw
2	rasa	mərasa	feel
3	wakil	məwakil	represent
4	jakin	məjakin	convince
5	masak	məmasak	cook
6	nikah	mənikah	marry
7	ʎatʃo	məʎatʃo	chat
8	ʎaɲi	məʎaɲi	sing
10	gambar	məŋgambar	draw a picture
11	kirim	məŋirim	send
12	dəŋar	məndəŋar	hear
13	tulis	mənulis	write
14	bantu	məmbantu	help
15	pukul	məmukul	hit
16	ḍzahit	məḍzahit	sew
17	tʃatət	mənatət	note down
18	ambil	məŋambil	take
19	isi	məŋisi	fill up
20	undaŋ	məŋundaŋ	invite

Provide a phonological analysis of these data to decide what the underlying prefix form is.

These are transcribed in IPA – [ɲ] = palatal nasal and consider the affricates [tʃ] and [ḍʒ] to have a palatal place of articulation (that is, they share the same phonological place of articulation as the palatal nasal). Remember that vowels are a completely different environment from consonants and that some alternations are uncovered because they act differently around vowels.

Be sure to include the following in your analysis:

- 1) You should provide all of the possible alternants of the prefix form (as well as their environments using natural classes if possible), and give support for why you select the one you do as the best form (including why the alternatives are not an elegant analysis).
- 2) Please provide phonological rules to account for the various alternations.

3) Discuss if any of these rules need to be in any particular order and why or why not. Again, be sure to also discuss how the selection of other forms for the underlying form of the prefix are not better choices (provide alternative analyses). Do this by providing discussion and underlying forms and derivations (both correct and incorrect) for the forms “convince,” “fill up,” “hear,” and “write” to support your choices of rule order.

4) Now try to account for the following form as well. This is tricky to do with features, so discuss in words how this piece of data causes you to modify your answer above with respect to environments and try to modify your above feature-based rules to incorporate this piece of data. Be sure to discuss how this form does/does not work with the way you wrote the rules using features. You should provide derivations of this form to illustrate your point.

9	hituŋ	məŋhituŋ	count
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**B. Jeffese** (12 points)

These data are completely made up. The [.] shows that 2 vowels are separate syllables rather than being a single diphthong. Assume this language has the same phonemic inventory as English except there are no affricates (makes features easier!).

1.	[kaθ]	<i>hat</i>	17.	[kaðɛn]	<i>hats</i>
2.	[dæp]	<i>shoe</i>	18.	[dæpen]	<i>shoes</i>
3.	[lɛm]	<i>book</i>	19.	[lɛmɛn]	<i>books</i>
4.	[ʃeɜ]	<i>cat</i>	20.	[ʃe.ɛn]	<i>cats</i>
5.	[kað]	<i>glove</i>	21.	[ka.ɛn]	<i>gloves</i>
6.	[gig]	<i>chair</i>	22.	[gigen]	<i>chairs</i>
7.	[tov]	<i>bottle</i>	23.	[to.ɛn]	<i>bottles</i>
8.	[kik]	<i>box</i>	24.	[kikɛn]	<i>boxes</i>
9.	[wæz]	<i>bird</i>	25.	[wæ.ɛn]	<i>birds</i>
10.	[tuf]	<i>nose</i>	26.	[tuvɛn]	<i>noses</i>
11.	[jet]	<i>shirt</i>	27.	[jetɛn]	<i>shirts</i>
12.	[bud]	<i>apple</i>	28.	[budɛn]	<i>apples</i>
13.	[wikos]	<i>dog</i>	29.	[wikozen]	<i>dogs</i>
14.	[poŋ]	<i>game</i>	30.	[poŋɛn]	<i>games</i>
15.	[ʃoʃ]	<i>bee</i>	31.	[ʃoʒɛn]	<i>bees</i>
16.	[fub]	<i>television</i>	32.	[fubɛn]	<i>televisions</i>

1.) (2 points) What is the morpheme meaning plural? Are there any choices to make about underlying versus surface forms for this morpheme? Why or why not?

2.) (10 points) Identify the alternating forms in these data and discuss the alternants and where each occur. Be sure to discuss any minimal pairs you can find and phonemic status of those sounds. Then, provide the best analysis you can come up with to account for these alternations. Use prose and rules to do so, including rule ordering if necessary. Be sure to identify the possible choices and why the choice you choose is better than the others (your analysis versus the alternative analyses). You should provide derivations (at least 4) for different example forms that alternate as well as some that do not to show how your rules operate through the derivation and make sure they aren't operating on sounds they shouldn't be. Be sure to include derivations of alternate analyses (i.e., rule ordering differences).