

Problem 3.

- 1st person sg:
 - if the word contains at least one voiceless consonant, the first one becomes nasal+voiced ($\langle \mathbf{p} \rightarrow \mathbf{mb}, \mathbf{t} \rightarrow \mathbf{nd}, \mathbf{h} \rightarrow \mathbf{nz}, \mathbf{x} \rightarrow \mathbf{nj}, \mathbf{k} \rightarrow \mathbf{ng} \rangle$)
 - otherwise the whole word is nasalised ($\mathbf{-m}$)
- 2nd person sg:
 - if the word begins with a vowel different from \mathbf{i} ($\mathbf{\acute{i}}, \mathbf{\hat{i}}$): $\mathbf{y-}$
 - otherwise the first vowel different from \mathbf{i} ($\mathbf{\acute{i}}, \mathbf{\hat{i}}$) changes as follows:
 - * $\mathbf{a} \rightarrow \mathbf{e}, \mathbf{\acute{a}} \rightarrow \mathbf{\acute{e}}, \mathbf{\hat{a}} \rightarrow \mathbf{e\hat{a}}$;
 - * $\mathbf{o} \rightarrow \mathbf{e}, \mathbf{\acute{o}} \rightarrow \mathbf{\acute{e}}, \mathbf{\hat{o}} \rightarrow \mathbf{e\hat{o}}$;
 - * $\mathbf{\hat{u}} \rightarrow \mathbf{i\hat{u}}$;
 - * $\mathbf{e} \rightarrow \mathbf{i}, \mathbf{\acute{e}} \rightarrow \mathbf{\acute{i}}, \mathbf{\hat{e}} \rightarrow \mathbf{\hat{i}}$ (the same happens in the immediately following syllables).

(a)	1st person sg	2nd person sg		1st person sg	2nd person sg	
	<i>mbího</i>	$_1\mathbf{p\acute{i}he}$	<i>to go</i>	<i>noínjoa</i>	$_8\mathbf{neíxo\hat{a}}$	<i>to see it</i>
	$_2\mathbf{mb\hat{e}yo}$	<i>píyo</i>	<i>animal</i>	<i>vanénjo</i>	$_9\mathbf{venéxo}$	<i>to buy</i>
	<i>yênom</i>	$_3\mathbf{y\hat{i}no}$	<i>wife</i>	<i>mómindi</i>	$_{10}\mathbf{mém\hat{i}ti}$	<i>to be tired</i>
	$_4\mathbf{\hat{e}nom}$	<i>yêno</i>	<i>mother</i>	<i>ínzikaxovoku</i>	$_{11}\mathbf{i\hat{h}ikexovoku}$	<i>school</i>
	<i>ngásaxo</i>	$_5\mathbf{késaxo}$	<i>to feel cold</i>	$_{12}\mathbf{\hat{o}nju}$	<i>yôxu</i>	<i>grandfather</i>
	<i>njérere</i>	$_6\mathbf{x\acute{i}riri}$	<i>side</i>	$_{13}\mathbf{nêwom}$	<i>nîwo</i>	<i>nephew</i>
	<i>ndôko</i>	$_7\mathbf{te\hat{o}ko}$	<i>nape</i>	<i>ánzarana</i>	$_{14}\mathbf{y\hat{a}harana}$	<i>hoe</i>

- (b) 1. 2nd person sg: in Portuguese loanwords $\mathbf{\acute{a}} \rightarrow \mathbf{e\acute{a}}$; in native words $\mathbf{\acute{a}} \rightarrow \mathbf{\acute{e}}, \mathbf{\hat{a}} \rightarrow \mathbf{e\hat{a}}$.
2. **lándana, ngápana.**

Problem 4.

singular	plural	
-b	-(a)bys	bø-bys ‘betel nuts’, juhuru-bys ‘eggs’
-h	-(a)ruh	ara-ruh ‘sugar canes’
-g	-(a)gas	bai-gas ‘sheets of sago bark’
-t	-(o)gu	nyba-t ‘4’

$$\left(\begin{array}{|c|c|c|} \hline \mathbf{anowip} & 6 \\ \hline \mathbf{wiwis} & 2 \times 6 = 12 \\ \hline \mathbf{araman} & 4 \times 6 = 24 \\ \hline \end{array} \right) + \left(\begin{array}{|c|c|c|} \hline \mathbf{atu-} & 1 \\ \hline \mathbf{bi-} & 2 \\ \hline 2 + 1_{\text{sg}} & 3 \\ \hline 2 + 1_{\text{pl}} + 1_{\text{sg}} & 4 \\ \hline 2 + 1_{\text{pl}} + 2 & 5 \\ \hline \end{array} \right) \times \left\{ \begin{array}{l} \mathbf{baig(as)} \\ \mathbf{bøb(ys)} \\ \mathbf{(nybat)} \end{array} \right\} 4 + \left\{ \begin{array}{|c|c|c|} \hline \mathbf{atu-} & 1 \\ \hline \mathbf{bi-} & 2 \\ \hline 2 + 1_{\text{sg}} & 3 \\ \hline \end{array} \right\} \times \left\{ \begin{array}{l} \mathbf{ara(ru)h} \\ \mathbf{juhurub(ys)} \end{array} \right\}$$