## Phonetics—Exercise 3

[1] Thai has a phonemic contrast in vowel length. Measure the duration of the vowels in the following data. Organize them into minimal pairs. What is the average difference in duration over your data?

- 1. òot 'to lament' 2. 'shoal' hàat 3. khǎj to wind 4. nèet 'reason' 'riches' 5. sĭn 'taste' 6. cìp 7. khǎaj 'to sell' 8. hàt 'to practice' 9. sĭin 'moral code' 'mushroom' 10. hèt 11. cìip 'to fold' 12. khùt 'to dig' 13. 'to abstain' òt 14. khùut 'to rub off' 15. ph'æ 'goat' ph'ææ 'be defeated' 16.
- [2] Thai has a phonemic contrast among five tones commonly classified as high, mid, low, rising, and falling. Ladefoged describes these in his table 10.4. Describe the implementation of the pitch contours in the following data courtesy of Atiwong. Do they agree with Ladefoged's description?

1.	khaj	'dried sweat'	mid tone
2.	náa	'mother's younger sibling'	high tone
3.	khǎj	'unlock'	rising tone
4.	naa	'field'	mid tone
5.	kháj	'scoop out'	high tone
6.	nàa	'custard apply'	low tone
7.	khâj	'fever'	falling tone
8.	nâa	'face'	falling tone
9.	năa	'thick'	rising tone
10.	khàj	'egg'	low tone