



ROUND ONE

February 2014
2 hours

PROBLEM BOOK

Answer as many of the questions as you can.
Write your answers in the answer books provided.

Questions and credits

A.	Visible speech	Natalie Webber & Patrick Littell	10 pts
B.	As easy as 2-3-5	Harold Somers	10 pts
C.	Maori loanwords	Pat Littell	20 pts
D.	What's the time in Tallinn?	Babette Verhoeven	10 pts
E.	Turkish bath time	David Palfreyman	25 pts
F.	Kairak verb forms	Cindy Schneider	25 pts

Question A: Visible speech (10 pts)

Alexander Melville Bell (father of Alexander Graham Bell) invented “Visible Speech” as a more detailed and systematic writing system for English, to help deaf students learn to pronounce spoken language more accurately.

A1: The following words in Visible Speech represent *boot*, *cogs*, *peaks*, and *tap*, but not in that order. Which is which? (4 pts)

- (a)
- (b)
- (c)
- (d)

A2. What English words are represented by the following? (3 pts)

- (a)
- (b)
- (c)

A3. Write the following words in Visible Speech: (3 pts)

- (a) *keep*
- (b) *tease*
- (c) *spook*

Question B: As easy as 2-3-5 (10 marks)

Study the following expressions in Japanese, then complete the translation of the phrases below. The η symbol represents a velar nasal, like the 'ng' in 'sing'.

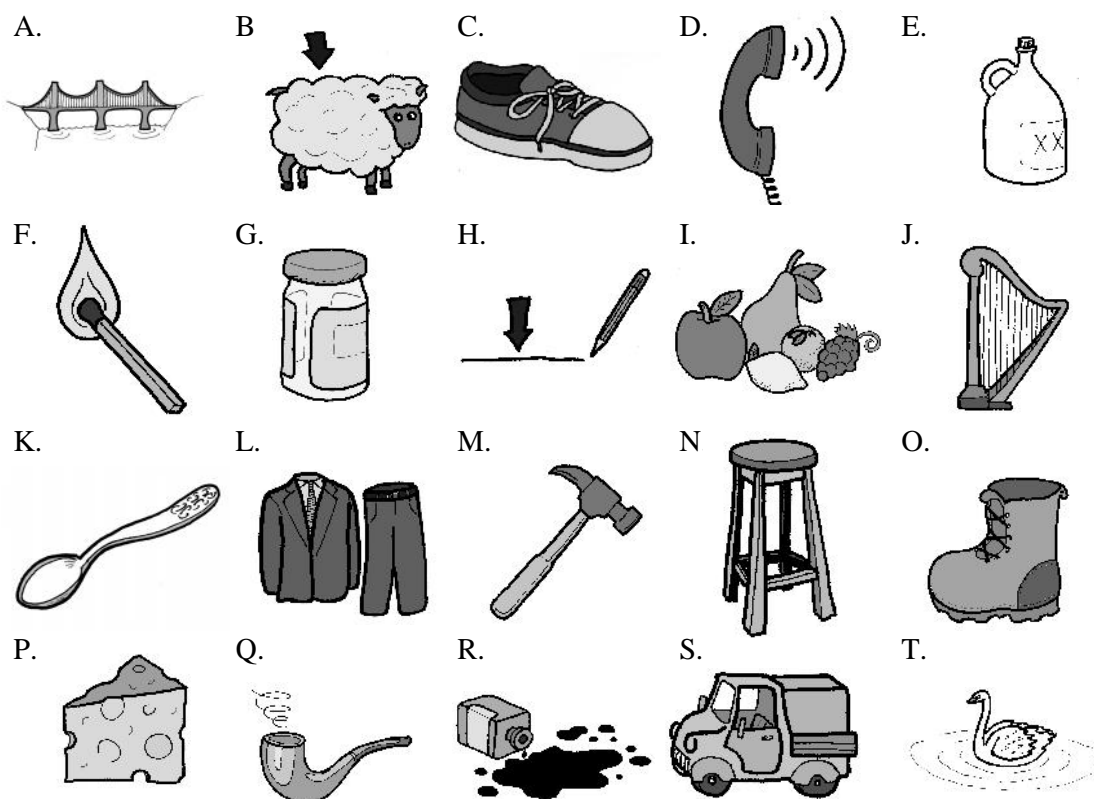
<i>ashi gohon</i>	five legs
<i>banana sambon</i>	three bananas
<i>bōru niko</i>	two balls
<i>empitsu nihon</i>	two pencils
<i>kami nimai</i>	two sheets of paper
<i>ishi san'ko</i>	three stones
<i>neko gohiki</i>	five cats
<i>risu nihiki</i>	two squirrels
<i>sara gomai</i>	five plates
<i>uma nitō</i>	two horses
<i>ushi santō</i>	three cows

- (a) *disuku* three disks
- (b) *endomame* five peas
- (c) *han'kachi* two handkerchiefs
- (d) *kaba* five rhinos
- (e) *kyūri* three cucumbers
- (f) *morumotto* two guinea pigs
- (g) *nezumi* three mice
- (h) *ringo* five apples
- (i) *tsuna* two ropes
- (j) *zō* three elephants

Question C: Maori loanwords (20 pts)

The Maori language, or “te reo Māori”, is the language of the Maori, the indigenous people of New Zealand. It is one of the official languages of New Zealand, along with English and NZ Sign Language, and over several centuries it has borrowed many English words. These words are often adapted to fit the sounds of the Maori language.

C1. Below are 20 Maori words that have been adapted from English words. In your answer book, match each word to the picture that illustrates it. The macron (line) over a vowel indicates that it is long. (5 pts)



- | | | | | |
|--------|----------|-----------|--------------|------------|
| 1 hāma | 5 iniki | 9 pūnu | 13 terewhono | 17 tūru |
| 2 hāpa | 6 māti | 10 pūtu | 14 tiā | 18 wāna |
| 3 hū | 7 paipa | 11 raina | 15 tiaka | 19 whurutu |
| 4 hūtu | 8 piriti | 12 taraka | 16 tīhi | 20 wūru |

C2. Many English loanwords in Maori deal with concepts introduced from the West. To what English words, indicating jobs or ranks, do the following Maori words correspond? (4 pts)

- (a) hekeretari (b) pirinihehe (c) pirihiimana (d) tiati

Continued on next page

C3. What countries are these?

(3 pts)

(a) *Iharaira* (b) *Kiupa* (c) *Peina* (d) *Tiamani* (e) *Tiapana*

C4. For each of these English words, predict what the Maori loanword form would be.

(8 pts)

- (a) beef
- (b) bull
- (c) cart
- (d) clock
- (e) lease
- (f) meat
- (g) seal
- (h) street
- (i) time
- (j) watch

Question D: What's the time in Tallinn? (10 pts)

Tallinn is the capital of Estonia, where about 1 million people speak Estonian, a non-Indo-European language closely related to Finnish.

The following expressions show how to tell the time in Estonian:



Kell on üks



Kell on kaks



Veerand kaks



Pool neli



Kolmveerand üksteist



Viis minutit üks läbi

Here are some more numbers in Estonian:

6 kuus 7 seitse 8 kaheksa 10 kümme

D1. Translate the following into English words. (5 pts)

- (a) *Kakskümmend viis minutit üheksa läbi*
- (b) *Veerand neli*
- (c) *Pool kolm*
- (d) *Kolmveerand kaksteist*
- (e) *Kolmkümmend viis minutit kuus läbi*

D2. Translate the following times into Estonian (5 pts)

- (a) Quarter to nine
- (b) Quarter past four
- (c) Half past eleven
- (d) Five past seven
- (e) Half past twelve

Question E: Turkish bath time (25 pts)

Turkish is spoken by about 63 million native speakers located mainly in Turkey, with smaller groups in other parts of Europe, the Caucasus and Central Asia. Turkish words are built up by adding one or more endings (affixes) to a root word; the vowels in most word endings vary depending on the vowels in the root word ("vowel harmony").

Here are some sentences in Turkish, with their English translations. Words in [square brackets] are needed in English but have no equivalent in the Turkish sentence.

<i>Arkadaşlarım şehirde mutlu.</i>	My friends [are] happy in [the] city.
<i>Baban İstanbul'u seviyor mu?</i>	Does your father like Istanbul?
<i>Fakirler Ankara'dan İstanbul'a gelmek istiyor.</i>	Poor [people] want to come from Ankara to Istanbul.
<i>İstanbul en büyük şehir.</i>	Istanbul [is the] biggest city.
<i>Eve geliyorlar.</i>	They come home.
<i>"Gel, arkadaşımız ol", diyor.</i>	[She/he] says "Come [and] be our friend".
<i>Evimizde büyük pencereler var.</i>	There are big windows in our house.
<i>Pencereden atlıyoruz.</i>	We jump from [the] window.
<i>Bir ev almak mı istiyorsun?</i>	Do you want to buy a house?

E1. Translate the following into English. (10 pts)

- (a) *Baban büyük mü?*
- (b) *"Evimize gel", diyoruz.*
- (c) *Doktor olmak istiyor.*
- (d) *Fakir arkadaşımı seviyorlar mı?*
- (e) *Ankara'dan geliyoruz.*

E2. Translate the following into English; they have a new affix you have not seen before, but it does not indicate a different tense. (15 pts)

- (a) *Geldiğimde "merhaba" diyorlar.*
- (b) *Fakir olduğunu diyorlar.*
- (c) *Baban geldiğimizden mutlu mu?*
- (d) *Geldiğin şehir büyük mü?*
- (e) *En mutlu olduğum şehir, İstanbul.*
- (f) *Fakir olduğumuz halde mutluyuz.*

Question F: Kairak verb forms (25 pts)

Kairak is spoken by about 750 people on the New Guinea Islands, off the Papua New Guinea mainland. It is a member of the Baining (Papuan) language family.

The data below (slightly simplified) illustrate how Kairak speakers express the past, present, and future tenses with different types of verbs. Your job is to identify the patterns involved, then answer the questions below.

1/2/3 indicate 1st, 2nd and 3rd person; 'sg' is singular, 'pl' is plural, 'du' is dual, i.e. when two people are involved (translated here as 'both'). Kairak distinguishes masculine ('m') and feminine ('f'), and also human vs non-human.

Pronunciation notes: *ɨ* is a low central vowel sound a bit like the 'u' in (British English) 'cup'; *ŋ* represents the 'ng' in 'sing'; *ny* represents the 'ny' sequence in 'canyon'.

Type 1 Example *tsup* 'to smoke'

	present		future		past	
1sg	<i>ŋut sup</i>	I smoke	<i>ŋu sup</i>	I will smoke	<i>ŋa sup</i>	I smoked
2sg	<i>it sup</i>	you (sg) smoke	<i>i sup</i>	you (sg) will smoke	<i>a sup</i>	you (sg) smoked
3sg m	<i>k t sup</i>	he smokes	<i>k sup</i>	he will smoke	<i>ka sup</i>	he smoked
3sg f	<i>yit sup</i>	she smokes	<i>yi sup</i>	she will smoke	<i>ya sup</i>	she smoked
1du	<i>unit sup</i>	we both smoke	<i>uni sup</i>	we both will smoke	<i>un sup</i>	we both smoked
2du/ 3du	<i>anit sup</i>	you / they both smoke	<i>ani sup</i>	you / they both will smoke	<i>an sup</i>	you / they both smoked
1pl	<i>urit sup</i>	we smoke	<i>uri sup</i>	we will smoke	<i>ut sup</i>	we smoked
2pl	<i>ŋ nit sup</i>	you (pl) smoke	<i>ŋ ni sup</i>	you (pl) will smoke	<i>ŋ ni sup</i>	you (pl) smoked
3pl	<i>rit sup</i>	they smoke	<i>ri sup</i>	they will smoke	<i>ra sup</i>	they smoked
3pl non-human	<i>ŋ rit sup</i>	they (non-human) smoke	<i>ŋ ri sup</i>	they (non-human) will smoke	<i>ŋ ri sup</i>	they (non-human) smoked

Other type-1 verbs:

tsek 'to raise'
tv st mna 'to meet'
tsiqut 'to try'

tjes 'to dig'
tkur 'to show'

Continued on next page

Type 2: Example *yam* ‘to swing’

	present		future		past	
1sg	<i>ŋu yam</i>	I swing	<i>ŋu yam</i>	I will swing	<i>ŋa yam</i>	I swung
2sg	<i>i yam</i>	you (sg) swing	<i>i yam</i>	you (sg) will swing	<i>a yam</i>	you (sg) swung
3sg m	<i>k yam</i>	he swings	<i>k yam</i>	he will swing	<i>ka yam</i>	he swung
3sg f	<i>yi yam</i>	she swings	<i>yi yam</i>	she will swing	<i>ya yam</i>	she swung
1du	<i>uni yam</i>	we both swing	<i>uni yam</i>	we both will swing	<i>un yam</i>	we both swung
2du/3du	<i>ani yam</i>	you/they both swing	<i>ani yam</i>	you/they both will swing	<i>an yam</i>	you / they both swung
1pl	<i>uri yam</i>	we swing	<i>uri yam</i>	we will swing	<i>ut yam</i>	we swung
2pl	<i>ŋ ni yam</i>	you (pl) swing	<i>ŋ ni yam</i>	you (pl) will swing	<i>ŋ n yam</i>	you (pl) swung
3pl	<i>ri yam</i>	they swing	<i>ri yam</i>	they will swing	<i>ra yam</i>	they swung
3pl non-human	<i>ŋ ri yam</i>	they (non-human) swing	<i>ŋ ri yam</i>	they (non-human) will swing	<i>ŋ yam</i>	they (non-human) swung

Other type-2 verbs:

<i>mon k</i>	‘to cook’
<i>samenj</i>	‘to speak out’
<i>v l ŋ</i>	‘to kill’
<i>m nat m</i>	‘to sleep’

Type 3: Example *tet* ‘to go’

	present		future		past	
1sg	<i>ŋa tet</i>	I go	<i>ŋa ret</i>	I will go	<i>ŋa met</i>	I went
2sg	<i>a tet</i>	you (sg) go	<i>a ret</i>	you (sg) will go	<i>a met</i>	you (sg) went
3sg.m	<i>ka tet</i>	he goes	<i>ka ret</i>	he will go	<i>ka met</i>	he went
3sg.f	<i>ya tet</i>	she goes	<i>ya ret</i>	she will go	<i>ya met</i>	she went
1du	<i>un tet</i>	we both go	<i>un ret</i>	we both will go	<i>un met</i>	we both went
2du/3du	<i>an tet</i>	you / they both go	<i>an ret</i>	you / they both will go	<i>an met</i>	you / they both went
1pl	<i>ut tet</i>	we go	<i>ut ret</i>	we will go	<i>ut met</i>	we went
2pl	<i>ŋ ni tet</i>	you (pl) go	<i>ŋ ni ret</i>	you (pl) will go	<i>ŋ ni met</i>	you (pl) went
3pl	<i>ra tet</i>	they go	<i>ra ret</i>	they will go	<i>ra met</i>	they went
3pl non-human	<i>ŋ ri tet</i>	they (non-human) go	<i>ŋ ri ret</i>	they (non-human) will go	<i>ŋ ri met</i>	they (non-human) went

Other type-3 verbs:

<i>t n</i>	‘to come’
<i>ton</i>	‘to go inside’
<i>dud b t</i>	‘to set fire to the bush’

Continued on next page

F1. Translate the following into Kairak.

(8 pts)

- (a) I tried
- (b) They both dig
- (c) We cooked
- (d) They [the dogs] will kill
- (e) You (sg) sleep
- (f) He came
- (g) You (pl) will go inside
- (h) She sets fire to the bush

F2. Translate the following into English:

(8 pts)

- (a) *rit v st mna*
- (b) *ani kur*
- (c) *rat sek*
- (d) *ŋ n sameŋ*
- (e) *ra mon k*
- (f) *un ton*
- (g) *a r n*
- (h) *ut mud b t*

F3. Provide the translations as indicated.

(3 pts)

- (a) If *yit sal* means 'she gives birth', what is 'to give birth'?
- (b) If *ra ru* means 'they will put', translate 'he put'.
- (c) If *unit nari* means 'we both feel', what does *ani nari* mean?

F4. Some of the forms are ambiguous, i.e. they do not fully distinguish the person or tense. Besides the ambiguity between 2nd and 3rd person dual ('you both' / 'they both'), which other forms are ambiguous? In your answer book, complete the following statements:

(6 pts)

- (a) In type-1 verbs [verb form] can be either [tense] or [tense] with [person], and also
- (b) [verb form] shows the same ambiguity with [person].
- (c) In type-[x] verbs, [tense] and [tense] are the same for [which person].