

# (I) Show That One for the People (1/1) [Solution]

11.

- a. etu
- b. frehtu
- c. reper
- d. turuf
- e. furu
- f. enetu



# (J) Marshallese Phonoloji (1/1) [Solution]

J1.

Spelling	Underlying Form	Pronunciation	English translation
bar	/pʸⓈrʸ/	[pʸarʸ]	'rock (object)'
lābōl	/lʸⓈjpʸⓈlʸ/	[lʸaæbʸʌlʸ]	'level (tool)'
jook	[tʰⓈwⓈk]	[tʰɔ:k]	'shy'
kewa	/kⓈjwⓈw/	[kʌɛwɔ]	'peer'
eor	/jⓈrʷ/	[jeorʷ]	'bleached'

**J2.** [Note: This solution mentions some technical terminology from linguistics, in case that terminology is of interest, but contestants are not expected to use this terminology in their answers during the contest.] The four emojis represent four underlying vowels; in linguistics terminology, these vowels are at different heights. Each vowel has 3 possible surface forms, based on the type of consonant it is next to. If the consonants beside a vowel are of different types, the vowel will split into a pair of vowels (a diphthong) with the two relevant surface forms. Glides (/j, w, w/) disappear when they are not included in the word's spelling, leaving behind a trace by the quality of the preceding vowel. If the deletion of a glide results in the configuration V1 V2 V2 V3 (i.e., 4 vowels in a row, where the middle 2 are the same), then that sequence of vowels is condensed to V2: (i.e., a long instance of V2). Stops are voiced intervocalically, with tʰ > zʰ.

**J3.** Postulating the presence of this sound makes it easier to explain the pronunciation of certain words - cases where the vowel is not next to a velarized consonant yet has the form you would expect from it being next to a velarized consonant.



## (K) Wordnet Battleship (1/3) [Solution]

**K1.** There are many possible sentences you could use, but the sentence must illustrate the correct sense of the word (see the notes under each answer).

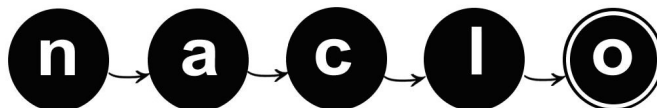
- a. **Print:** The company is going to print some pamphlets.
  - The sentence must illustrate the meaning “to create something by printing”, not “to mark something by printing.” For example, the answer should not be “I printed my name on the paper.”
- b. **Dry:** To make raisins, you must dry the grapes.
  - The sentence must illustrate the meaning “to modify something by drying it.” This is the only meaning available in the wordnet that is provided, but there are other meanings of the word in English that should not be used here, such as the adjective form (“The towel is finally dry.”)

**K2.**

- Frigate: do-modify-mark
- Yacht: perform-serenade
- Rowboat: produce-generate

**K3.** For questions that require you to provide an example sentence, there are many possible sentences you could use, but the sentence must illustrate the correct sense of the word (see the notes under each answer).

- a. Hit
- b. Hit
- c. Miss
- d. Hit
- e. Miss
- f. Every country needs a good ruler.
  - The sentence must use the “leader” sense of *ruler*, not the “measuring stick” sense.
- g. Hit
- h. Hit
- i. *Hamlet* might be Shakespeare’s most famous play.
  - The sentence must use the sense of *play* that means “a work of literature,” not the sense that refers to an event.
- j. I used a ruler to measure the object.
  - The sentence must use the “measuring stick” sense of *ruler*, not the “leader” sense.
- k. **Party:** I invited a dozen people to the party.
- l. The publication of the book will occur in March.
  - The sentence must use the sense of *publication* that refers to an event, not the sense that refers to an object.



# (K) Wordnet Battleship (2/3) [Solution]

## K3 (continued).

m. I drank a whole pitcher of water.

- The sentence must use the sense of *pitcher* that refers to a quantity, not the sense that refers to an object or to the person on a sports team.

n. I will attend the play tomorrow.

- The sentence must use the sense of *play* that refers to an event, not the sense that refers to a work of literature.

o. Hit

p. Hit

q. Miss

r. Hit

s. Hit

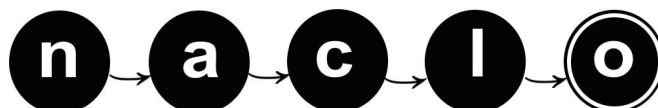
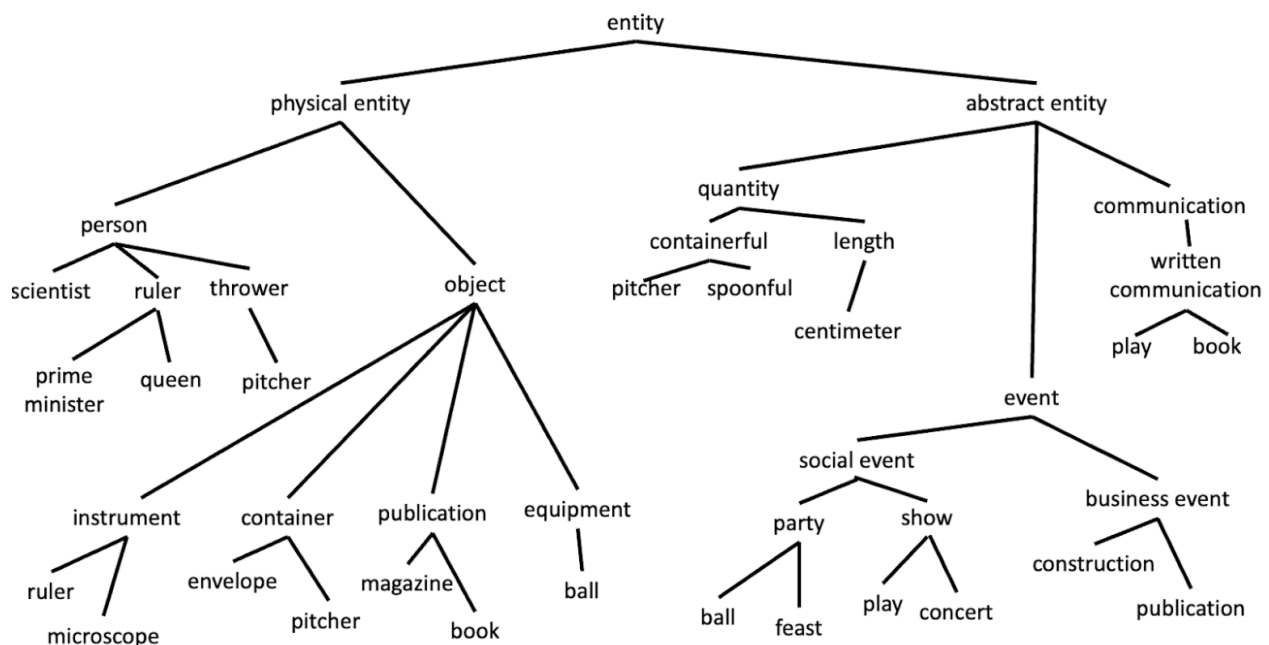
t. Miss

u. Miss

v. The book was very heavy.

- The sentence must use the sense of *book* that refers to a physical object, not the sense that refers to an abstract work of literature.

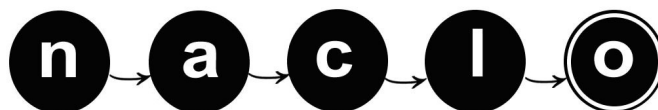
Here is the full wordnet used for K3:



# (K) Wordnet Battleship (3/3) [Solution]

Here are the positions of the players' ships in both games:

- First game:
  - Player 1:
    - Frigate: produce-create-print
    - Yacht: modify-dry
    - Rowboat: mark-scribble
  - Player 2:
    - Frigate: do-modify-mark
    - Yacht: perform-serenade
    - Rowboat: produce-generate
- Second game:
  - Player 3:
    - Aircraft carrier: entity-physical entity-object-publication-book
    - Battleship: abstract entity-quantity-containerful-pitcher
    - Cruiser: social event-show-play
    - Submarine: event-business event-publication
    - Destroyer: container-pitcher
    - Patrol boat: party-feast
  - Player 4:
    - Aircraft carrier: abstract entity-event-social event-party-ball
    - Battleship: physical entity-person-ruler-queen
    - Cruiser: object-publication-magazine
    - Submarine: communication-written communication-play
    - Destroyer: containerful-spoonful
    - Patrol boat: instrument-ruler



# (L) Camp Not-So-Pleasant Hill (1/1) [Solution]

L1. take me home

L2.

- a. postcards, archery, the lake, tennis
- b. soccer, friends, turtle, crafts, postcards
- c. rope course, food, cabins

L3.

- a. You(sg) will give the fish to Hatem.
- b. You(sg) will give Topa' the fish.
- c. Quep mi' nam con wom Hatem Topa'



# (M) Tongue Tied in Chukchi (1/1) [Solution]

## M1.

- You (sg.) tie them up.
- We tie you (sg.) up.
- You (pl.) are tying me up.
- You (pl.) are seeing us; She is seeing you (pl.); They are seeing you (pl.)

**M2.** Note that, for purposes of the problem, some of these forms have been simplified from the true forms in Chukchi.

- təkəlwəyʔen
- nelʔurkənimək
- jəŋotək
- nekəlwərkənet
- inejŋoyʔi

## Explanation of the grammar:

The data presented give a very simple overview of the transitive verb agreement patterns in southern Chukchi.

Chukchi cares about the agency hierarchy 1 > 2 > 3. Unless the subject is higher in the hierarchy than the object, the verb takes an inverse alignment prefix.

Verbs have the following form. If multiple affixes from the same slot are applicable, the highest is chosen.

SLOT -1	STEM	SLOT 1	SLOT 2
<b>t-</b> = 1s subject <b>mət-</b> = 1p subject  <b>ine-</b> = inverse alignment, 1s object <b>ne-</b> = inverse alignment	<b>-klw-</b> = give <b>-jŋo-</b> = sniff <b>-lʔu-</b> = see	<b>-rkə-</b> = progressive, before <b>n</b> .  <b>-rkəni-</b> = progressive <b>-yʔe-</b> = 3s object	<b>-tək</b> = 2p subject/object  <b>-yʔi</b> = 1s object <b>-mək</b> = 1p object <b>-yət</b> = 2s object <b>-n</b> = 3s object <b>-net</b> = 3p object

The epenthetic vowel ə is inserted to break up consonant clusters. Working right-to-left, ...CCC>...CəCC, and #CC> #CəC.

Note that alternative analyses are possible. For instance:

In particular, one can analyse 5 prefixes: **t(ə)/mət(ə)** as above, **ine-** as marking 1s object, **ne-** as marking 1p object, and **ne-** as marking 3s|p subject. One can also analyse the suffixes as being fusional in the 3<sup>rd</sup> person: **yʔen / rkən // net / rkənet**.

**Source:** Dunn, M. J. (1999). A grammar of Chukchi.



# (N) A Saharan Sensation (1/1) [Solution]

## N1.

1. G
2. C
3. K
4. L
5. B
6. E
7. A
8. D
9. I
10. F
11. H
12. J

## N2.

- a. perite
- b. pileqe
- c. atari
- d. medewi

## Explanation:

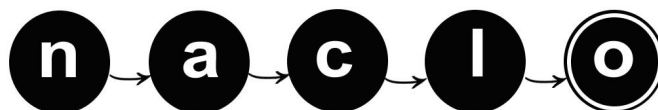
1. Meroitic is written right-to-left.
2. By default, all letters have an inherent vowel unless followed by a letter. For most letters, this is -a, but there are two letters (**se** and **te**) that have an inherent -e.

Vowels:

ʒ a ʒ e ʒ i / o

Consonants:

ð w(a) ʋ b(a) ʒ p(a) ʃ m(a) ʒ n(a) ω r(a) ʃ l(a) ʒ s(a) ʒ k(a) ʃ q(a) ʃ t(a)  
ʋ ʃ se ʃ te





# (O) Tone's Puzzle (1/2) [Solution]

## O1.

1. G
2. H
3. D
4. F
5. B
6. A
7. C
8. E

## O2.

- a. chicken's fish
- b. bird's father
- c. car's bird

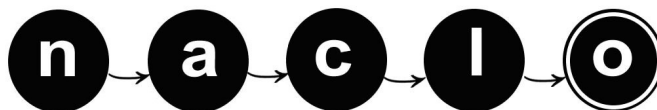
## O3.

- a. [wùtú sòrì]
- b. [dúkè wùtù]
- c. [àitè sòkrè]
- d. [dèβì βórù]
- e. [sòrì àjà]
- f. [àitē g<sup>w</sup>ákù]

## O4.

- Word order is possessor-possessed.
- b → β after a vowel.
- Words have a lexical tone, either high (H), low (L), or toneless (0). Words have a lexical tone, either high (H), low (L), or toneless (0).
- The final syllable in the phrase is always low.
- Since all the phrases are two-word and four-syllable, the only thing left to explain is the second syllable of the phrase:
  - Before L tone (n.b.: a true L, not a toneless word expressed as low), the previous syllable becomes high (anticipatory tonal polarity)
  - Before H tone, a toneless word's final syllable drifts upwards to mid tone (gradual updrift)
  - If neither of the previous apply, then the word's first syllable tone spreads to its second syllable tone (toneless taking a default low-low)

(continued on next page)



# (O) Tone's Puzzle (2/2) [Solution]

## O4. (continued)

Tones of words in the problem:

H	L	0
bóru <i>fish</i>	dèβi <i>child</i>	sòkrɛ <i>rat</i>
g <sup>w</sup> áku <i>ear</i>	sòri <i>earth</i>	aja <i>chicken</i>
dúké <i>bird</i>	wùtu <i>car</i>	aitɛ <i>father</i>

Notes:

- This problem demonstrates only a very small piece of the Abawiri tone system. In Abawiri, there are many more lexical tone categories than these three, and words with different numbers of syllables fall into each one. There are also grammatical tone rules in some limited contexts. The rule that the last syllable in a phrase/utterance is low always applies, as does gradual updrift. Anticipatory tonal polarity applies except in some specific syntactic contexts.
- None of the tone rules shown in this problem are specific to the genitive construction, which is a simple juxtaposition of possessor-possessed

Source:

Yoder, Brendon Eugene. A grammar of Abawiri, a Lakes Plain language of Papua, Indonesia. 2020. Especially, pp. 65 ff. for tone analysis/data and p. 111 for genitive construction.



# (P) Counting in Roon (1/2) [Solution]

P1.

- a. 6
- b. 24
- c. 25
- d. 56
- e. 4
- f.  $\eta$ okor
- g. i $\eta$ okor
- h. oneme $\eta$ okor
- i. rimi $\eta$ okor
- j. 17
- k. safur onemenuru
- l. safur rimenuru
- m. arzus yoser
- n. aresoyosier yosier
- o. ares nuru beberin yosier
- p. arzus di  $\eta$ okor safur onemefak
- q. areso $\eta$ okor safur rimefak (aresi $\eta$ okor or areso $\eta$ okor are acceptable)
- r. ares fik beberin siu

**Explanation (continued on next page):**

1855 and 1955 Roon had a base-20 system, while 2012 Roon has a base-10 system (influenced by the dominant base-10 language Biak used in education). **fik**, **war**, and **siu** are borrowed from Biak.

[#]	1855	1955	2012
1	yoser	yosier	
2	nuru		
3	$\eta$ okor	i $\eta$ okor	kior
4	fak		fiak
5	lim	rim	
6	onem		wonem
7			fik
8			war
9			siu
10	(safur)	safur	
Base	arzus	areso	ares



# (P) Counting in Roon (2/2) [Solution]

Explanation. (continued)

1855

1-6  $[\alpha]$

7-10 **oneme**- $[\alpha-5]$  "6+ $\alpha(-1)$ " \*irregular!

11-19 **safur**  $[\alpha]$  "10+ $\alpha$ "

20-39 **arzus** ( $[\alpha]$ ) "20+ $\alpha$ "

20-99  $20\alpha + \beta =$  **arzus di**  $[\alpha]$  ( $[\beta]$ )

1955

1-5  $[\alpha]$

6-9 **rime**- $[\alpha-5]$  "5+ $\alpha$ " (**ei** > **i**)

10-19 **safur** ( $[\alpha]$ ) "10+ $\alpha$ "

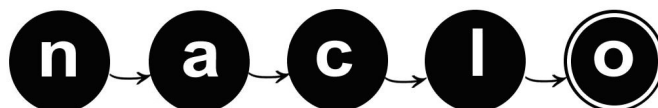
20-99  $20\alpha + \beta =$  **areso**- $[\alpha]$  ( $[\beta]$ )

2012

1-9  $[\alpha]$

10-19 **safur**  $[\alpha]$  "10+ $\alpha$ "

20-99  $10\alpha + \beta =$  **ares**  $[\alpha]$  (**beberin**  $[\beta]$ )



# (Q) What to Wear? (1/1) [Solution]

Q1.

- a. I wear shoes.
- b. You(sg) wear her hat.
- c. You(pl) find our shoes.
- d. You(sg) forget your(sg) hat.
- e. baa kho pok qhat aa.
- f. baa naa tsong rí i.
- g. Í jàa qhòng lak chak ang.
- h. i jàa qhòng lak chak ang.

## Explanation:

The structure of a sentence is:

[Possessor] [Direct object] [Verb] [Subject agreement marker]

(There is one sentence with an overt subject “My hat falls down”- in that case the order is possessor-subject-verb-agreement marker)

The nouns are all 2 words long:

- **kho pok = hat**
- **khat sam = blanker**
- **etc.**

The verbs are generally one word long, except for “forget” (lak chak).

For “wearing”, there are many verbs which are cognates of the thing being worn. E.g., “pok” means “wear a hat” (cognate with “hat” = “kho pok”).

