(F) Fakepapershelfmaker

F1. The following is a list of several Japanese words with their English meanings; use them to write definitions of the Japanese compounds.

sakura shiru iro	cherry blossom soup color(ed)	kami tana tanuki	paper shelf raccoon	nise tsukuri hako	fake maker box	
(a) <i>nisetanukijiru</i> (b) <i>nisedanukijiru</i>		fake soup made out of raccoons soup made out of fake raccoons				
(c) irogamibako		box for colored paper				
(d) irokamibako		colored box for paper				
(e) nisezakuradana		shelf for fake cherry blossoms				
(f) nises	akuradana	fake shelf for cherry blossoms				

F2. Match the following four-member Japanese compound words with their English meanings; one of the Japanese words has two possible meanings.

(1) a fake shelf-maker made of paper	B: nisekamitanadzukuri
(2) a maker of fake shelves for paper	D: nisekamidanadzukuri
(3) a fake maker of shelves for paper	D: nisekamidanadzukuri
(4) a shelf-maker made of fake paper	C: nisegamitanadzukuri
(5) a maker of shelves for fake paper	A: nisegamidanadzukuri

F3. Explain your answers.

When we compound two Japanese words, the first word modifies/describes the second. For example, adding *hashi* before *hako* makes a word meaning a box (*hako*) for chopsticks (*hashi*). As another example, adding *nuri* before *hashi* makes a word meaning chopsticks (*hashi*) that are lacquered (*nuri*).

Every simple (noncompound) word has two forms: the basic form, used when it occurs alone, and the variant form, sometimes used in compound words.

Basic	Variant	Basic	Variant
hako	<u>b</u> ako	shiru	jiru
hana	<u>b</u> ana	sora	<u>z</u> ora
hashi	<u>b</u> ashi	tana	<u>d</u> ana
kami	<u>g</u> ami	tanuki	<u>d</u> anuki
kiri	<u>g</u> iri	tsukuri	<u>dz</u> ukuri
sakura	<u>z</u> akura		

The variant form has a different first letter, which depends on the first letter in the basic form. Specifically, we replace the initial h with b, initial k with g, initial s with z, initial sh with j, initial t with d, and initial ts with dz. As a side note, some letters do not require replacement, but they do not occur in the problem.

We next deduce rules for compounding simple words; we denote basic forms by a, b, c, and d, and respective variants by \underline{a} , \underline{b} , \underline{c} , and \underline{d} . We first notice that two-member compounds have the following structure:

$$a + b \rightarrow a\underline{b}$$

Three-member compounds have two different structures, which depend on their meaning. If we first form a word containing a and b, and then compound it with c, we use the following structure:

$$(a + b) + c \rightarrow a\underline{b} + c \rightarrow \underline{abc}$$

If we first compound *b* and *c*, and then add *c*, we use a different structure:

$$a + (b + c) \rightarrow a + b\underline{c} \rightarrow ab\underline{c}$$

Thus, when we combine two (simple or compound) words into a larger compound word, we use the following rules:

- We use the original form of the first word.
- If the second word is simple (noncompound), we use its variant form.
- If the second word is compound, we do not change it.

When compounding four simple words, we can get five different internal structures; two of them give the same result, which is why the four compounds in Problem F2 correspond to five possible meanings.

We can now determine which English version corresponds to what structure.

```
(1) a fake shelf-maker made of paper
                                                               (2) a maker of fake shelves for paper
          \rightarrow fake + (paper + (shelf + maker))
                                                                          \rightarrow (fake + (paper + shelf)) + maker
          \rightarrow a + (b + (c + d))
                                                                         \rightarrow (a + (b + c)) + d
          \rightarrow a + (b + cd)
                                                                         \rightarrow (a + bc) + d
          \rightarrow a + bcd
                                                                          \rightarrow abc + d
          \rightarrow abcd
                                                                          \rightarrow abcd
          → nise-kami-tana-dzukiri (B)
                                                                         → nise-kami-dana-dzukuri (D)
(3) a fake maker of shelves for paper
                                                               (4) a shelf-maker made of fake paper
          \rightarrow fake + ((paper + shelf) + maker)
                                                                         \rightarrow (a + b) + (c + d)
                                                                         \rightarrow a\underline{b} + c\underline{d}
          \rightarrow a + ((b + c) + d)
          \rightarrow a + (bc + d)
                                                                         \rightarrow abcd
          \rightarrow a + bcd
                                                                          → nise-gami-tana-dzukuri (C)
          \rightarrow abcd
          \rightarrow nise-kami-dana-dzukuri (D)
(5) a maker of shelves for fake paper
          \rightarrow ((a + b) + c) + d
          \rightarrow (ab + c) + d
          \rightarrow (abc) + d
```

```
\rightarrow a\underline{bcd}
```

→ nise-<u>g</u>ami-<u>d</u>ana-<u>d</u>zukuri (A)