

## Chapter Three Translation Problems Set 3 #4, #5: WebCT Discussion

*Problem:* **Translate** each of the following English sentences into the formal language.

*Discussion:* In Problem #4 the subject matter sentences involved are “*Suki likes sushi*” and “*Neko likes sushi*”.

4. Suki and Neko like sushi.

(**P**: Suki likes sushi. **Q**: Neko likes sushi)

These are connected together by the form phrase “and,” which is translated by the wedge (with outer parentheses). Following the translation table, the sentence as a whole is translated as follows.

$$(\mathbf{P} \wedge \mathbf{Q})$$

In Problem #5 three subject matter sentences appear: “*We’re having ice cream*,” “*We’re having cake*,” and “*We’re having champagne*”.

5. We’re either having ice cream and cake, or champagne.

(**P**: We’re having ice cream. **Q**: We’re having cake. **R**: We’re having champagne)

The sentence as a whole is a disjunction, with form phrase “either... or”; this is translated by the vel.

Either P and Q, or R

$$(\mathbf{P} \text{ and } \mathbf{Q} \vee \mathbf{R})$$

“P” and “Q” are connected together by “and,” which is translated by the wedge.

$$((\mathbf{P} \wedge \mathbf{Q}) \vee \mathbf{R})$$