LESSON 2 – PRACTICE EXERCISE KEY

NOTE – Any homework exercises for this lesson not included below are gradeable by the software program and/or through the online Grade Grinder:

1.7

	Orig	90	180	270
1	F	F	F	F
2	F	F	F	F
3	T	F	F	T
4	F	F	T	T
5	T	F	F	F
6	F	F	T	F

1.8

Part 1

GaveScruffy(max,max)
GaveScruffy(max, claire)
GaveScruffy(claire,claire)
GaveScruffy(claire,max)
GaveCarl(max,max)
GaveCarl(max, claire)
GaveCarl(claire,claire)
GaveCarl(claire,max)

Part 2

64 (i.e., 4^3 or 4x4x4; that is, 4 names distributed over 3 argument positions)

Part 3

4 names
4 predicates

Note that you need to be sure that you understand the first two parts of the question above before you tackle Part 3.

Part 1 deals with a language containing two relatively more complex binary predicates (**GaveScruffy** and **GaveCarl**) with fewer names (**max** and **claire**) than the other (second) language has. As noted above, this combination of predicates and names can produce 8 sentences.

Part 2 asks you to compute the same sort of thing for the second language, which has just one ternary predicate (**Gave**) but more names (four of them: **max**, **clair**, **scruffy**, and **carl**). The point here is that the predicate **Gave** is more versatile than the predicates used with the first language, and that versatility allows you to generate more sentences to express more meanings in the second language than you could in the first. Indeed, since Gave is a ternary predicate, that means you have the potential of distributing four names over three argument positions, or 4 to the third power (= 64 distinct sentences).

Finally, **Part 3** asks you to consider "a language like the first" (what they mean here is a language with ***binary*** *predicates*) and figure out how many binary predicates and names it would take to be able to

express all 64 meanings that could be generated by the second language above. This different, third language (containing binary predicates only) would require 4 binary predicates (to be precise, **GaveScruffy**, **GaveCarl**, **GaveMax**, and **GaveClaire**) along with the 4 names **max**, **clair**, **scruffy**, and **carl**, in order to be able to express all 64 meanings expressible with the second language above.

1.10

1. Max owned Scruffy at 2:00 (p.m., etc.)
2. Max fed Scruffy at 2:30
3. Max gave Scruffy to Claire at 3:00
4. 2:00 is earlier than 2:00