

# HOMWORK 4:

## MONADIC PREDICATE LOGIC TRANSLATIONS

Intro Logic  
Ted Sider

**Translate into monadic (i.e., only one-place predicates) predicate logic.**

1. Scully is a good doctor, but a bad liar.
2. Someone is not happy.
3. If Spender is a dangerous man, then everyone is frightened.
4. Not everyone is both sleepy and bored.
5. Every rat is healthy.
6. Some villain is neither armed nor dangerous.
7. No fish breathes air or runs on land. (Symbolize 'breathes air' and 'runs on land' by single predicate letters.)
8. If no human has shame then all rats are eaten
9. All mice and gerbils are either friendly or rabid.
10. Only fish swim.
11. Only geniuses and cheaters will pass.
12. Only small rats are (rats that are) good in soup. (Let a single predicate letter stand for 'is good in soup'.)
13. The only dangerous rats are giant mutant rats.
14. If anything breaks, Mulder dies.
15. If a rat is prepared well and eaten, it is tasty.
16. If a tree falls, not every tree is left standing. (Let a single predicate letter represent 'is left standing'.)
17. Some people are vegetarian only if no pets are edible.