## Chapter 3 - Thinking and reasoning with categories

## Getting familiar with . . . the square of opposition

## For each of the following, answer true or false.

1. If an A-claim is true, then an E-claim is false.
2. If $\operatorname{No} A$ are $B$ is true, then $A l l A$ are $B$ is false.
3. If No $A$ are $B$ is false, then $A l l A$ are $B$ is true.
4. It's not possible for corresponding A-claims and E-claims to be false.
5. It's not possible for corresponding A-claims and E-claims to be true.
6. If $A l l A$ are $B$ is false, then No $A$ are $B$ is undetermined.
7. If an I-claim is true, then an O-claim is false.
8. If Some $A$ are not $B$ is true, then Some $A$ are $B$ is false.
9. If Some $A$ are $B$ is false, then Some $A$ are not $B$ is true.
10. It's not possible for corresponding I-claims and O-claims to be false.
11. It's not possible for corresponding I-claims and O-claims to be true.
12. If Some $A$ are $B$ is false, then Some $A$ are not $B$ is undetermined.
13. We know that "No cats are dogs" is true, so "Some cats are dogs" is obviously false.
14. If Some $A$ are not $B$ is true, then $A l l A$ are $B$ is false.
15. If Some $A$ are $B$ is false, then No $A$ are $B$ is true.
16. If an A-claim is false, then the corresponding I-claim is false.
17. If "Some fricks are not fracks" is false, then "No fricks are fracks" is false too.
18. If Some $A$ are $B$ is true, then $A l l A$ are $B$ is true.
19. If an A-claim is true, then the corresponding O-claim is undetermined.
20. If "Some snakes are not yellow" is false, then "No snakes are yellow" is false too.
