

## Translation into Predicate Logic

Use the scheme of abbreviation below to translate the following sentences into predicate logic.

F	<i>is an even number</i>
G	<i>is an odd number</i>
H	<i>is a real number</i>
I	<i>is a prime number</i>
J	<i>is a whale</i>
K	<i>is a mammal</i>
L	<i>is an insect</i>
M	<i>is a tree</i>
N	<i>is a fish</i>

1. All even numbers are real numbers.
2. Some prime numbers are odd numbers.
3. No even number is an odd number.
4. Some prime numbers are even numbers.
5. Some prime numbers are not odd numbers.
6. If some prime numbers are not odd numbers, then some even numbers are prime.
7. Some prime numbers are odd and some prime numbers are even numbers.
8. Every real number is either an even number or an odd number.
9. No real number is both an even number and an odd number.
10. No insect is a mammal.
11. If whales are mammals, then fish are not mammals.
12. Nothing is both a whale and a tree.
13. Some things are both whales and mammals.
14. Something is both a whale and not a tree.
15. Some whales are not fish.

Use the scheme of abbreviation below to translate the following sentences into predicate logic.

F	<i>is a frog</i>
G	<i>is green</i>
H	<i>eats insects</i>

16. Everything is green.
17. Nothing is green.
18. Something eats insects.
19. All frogs are green.
20. Some frogs eat insects.
21. All insect eaters are frogs.
22. No green things are insect eaters.
23. Some insect eaters are not green.
24. If all frogs are green, then all insect eaters are green.
25. Some insect eaters are not frogs.

Use the scheme of abbreviation below to translate the following sentences into predicate logic.

L	<i>Loves</i>
D	<i>Dance</i>
a	<i>Alejandro</i>
c	<i>Clarita</i>
F	<i>is a boy</i>
G	<i>is a girl</i>
x	<i>variable</i>
y	<i>variable</i>
z	<i>variable</i>

26. Alejandro loves Clarita.
27. Clarita does not love Alejandro.
28. Alejandro loves himself.

29. Clarita loves herself.
30. Alejandro loves everything.
31. Clarita loves nothing.
32. Someone loves Alejandro.
33. Someone does not love Clarita.
32. Every boy danced with Alejandro.
33. Some girl danced with Clarita.
34. Some girl danced with every boy.
35. Every boy danced with some girl.
36. No boy danced with Clarita.
37. No girl danced with Alejandro.
38. Some girl loves Alejandro but danced with Clarita.
39. Some boy danced with Clarita, but loves Alejandro.
40. No boy danced with Clarita and Alejandro.