Here are some common logical symbols that are used in deduction:

"¬" it is not the case that

"∧" and

"∨" or

"→" if...then

"↔" if and only if

Premises: All dogs are mammals. Fido is a dog.

Conclusion: Fido is a mammal.

This argument can be symbolized as follows:

(A) ∀x(Dx → Mx) (All x are y if and only if x is a dog and y is a mammal)

(B) Df (Fido is a dog)

Therefore, (C) Mf (Fido is a mammal)