*Exercise 5.1.1 Pair wffs and their instances from the list of sentences below. Some formulas may appear in several pairs. Others may appear in none.

i	∀xFax
ii	∃x(Fxa & ∀yGyxa)
iii	∃xFax
iv	Fab
v	∃y∀xFyx
vi	∃zx(Fxz & ∀yGyxa)
vii	∀xyFxy
viii	∀xFxa
ix	∃zx(Fxz & ∀yGyxz)
x	Fba & ∀yGyba

Comment. The primitive rules of proof for predicate logic include all the primitive rules from chapter 1. There are also introduction and elimination rules for the two quantifiers and for the identity symbol. Two of the new rules have conditions that must be met for the application of the rules to be correct.

universal-elim Given a universally quantified sentence (at line *m*), conclude any instance of it.

Condition:	None.
Annotation:	*m* ∀E
Assumption set:	same as line *m*.
Also known as:	Universal Instantiation.

Examples.

(a)

1	(1)	∀xFx	A
1	(2)	Fa	1 ∀E
1	(3)	Fb	1 ∀E