

Here is your lexicon:

walks :=	$\lambda x.walk'x ::$	et
loves :=	$\lambda x\lambda y.love'xy ::$	$e(et)$
reads :=	$\lambda x\lambda y.read'xy ::$	$e(et)$
John :=	$j' ::$	e
Mary :=	$m' ::$	e
woman :=	$\lambda x.woman'x ::$	et
book :=	$\lambda x.book'x ::$	et
blue :=	$\lambda p\lambda x.blue'x \wedge px ::$	$et(et)$
is :=	$? ::$	$?$
no :=	$\lambda p\lambda q.\neg(\exists x.px \wedge qx) ::$	$et(ett)$
a :=	$\lambda p\lambda q.\exists x.px \wedge qx ::$	$et(ett)$
every :=	$\lambda p\lambda q.\forall x.px \rightarrow qx ::$	$et(ett)$
QOBJ := _{LEX}	$? ::$	$?$

Q 1.

The lexicon has only subject position interpretations for the quantifiers *a*, *every*, and *no*. You are required to write a lexical rule as a lambda term (see *QOBJ*) that applies to quantifier interpretations to turn them to object position interpretations. With this in place, you should be able to derive the meaning of sentences like:

(1) (John (reads (every book)))

Q 2.

Derive the meaning of:

(2) ((No woman) (reads (every (blue book))))).

Q 3.

The interpretation for the adjective *blue* is suitable for its attributive use only. By this lexicon, we assume that this is its basic interpretation. Propose an interpretation for the copula *is*, so that you can derive the meaning of sentences like the following:

(3) ((No book) (is blue)).

Please submit all your answers in Lambda Calculator.