

# PHIL 250: Introduction to Symbolic Logic

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Provide for each of the following formal sentences its analysis tree, showing how it is built up from primitive expressions in accordance with the formation rules of the formal grammar. Then provide a fluent English sentence having the logical form in question. (You may choose your own translation manual for the names, function signs and predicates involved.)

1.  $\neg(\exists xFx \vee \exists yGy)$
2.  $\neg\exists xFx \vee \exists yGy$
3.  $\neg\exists x(Fx \wedge \forall yLxy)$
4.  $\neg\exists xFx \wedge \exists x\forall yLxy$
5.  $\forall x(Fx \rightarrow \exists yLxy)$
6.  $\forall xFx \rightarrow \exists y\forall xLxy$
7.  $\forall x\forall y(Lxy \rightarrow Fx)$
8.  $\forall x(\exists yLxy \rightarrow Fx)$
9.  $\forall x((Fx \vee Gx) \rightarrow Lxx)$
10.  $\exists x((\neg Fx \wedge \neg Gx) \wedge \neg Lxx)$