PS 8 Solutions to Have Handy:

PS8.1 (Gd > Pd) & (Ga > (Aa & ~Mac))

PS8.2 ( (Ga & Gb) & (Gc & Gd) ) > ( (Ja v Jb) v (Jc v Jd) )

PS8.3 ( (Ja v Jb) v (Jc v Jd) ) > ( (((Ga & Gb) v (Ga & Gc)) v (Ga & Gd)) v ( ((Gb & Gc) v (Gb & Gd)) v (Gc & Gd) ) )

PS8.4 (Ax)Gx > (Gd & Gc)

PS8.5 (Ax)Gx v (Ex)~Gx

PS8.6 ((Ax)Gx & Jc) > Pa

PS8.7 (Ex)(Gx & ~Px) & (Ax)Jx

8.8: ((Pl & Pm) v (Pl & Pj) v (Pm & Pj)) & ~(Pl & Pm & Pj)

Also accepts (Pl & Pm) v (Pl & Pj) v (Pm & Pj) & ~(Pl & Pm & Pj)

8.9: (Ex)(Mx & Oxj) & (Ex)(Mx & ~Oxj)

8.10: (Ax)((Px & Lxm) > Oxo)

note that the following is deemed `ungrammatical’: can’t have parentheses around atomic wffs of QL

(Ax)((Px & Lxm) > (Oxo))

8.11: ~(Ex)(Ax & (Lxm v Tx))

Note that you NEED those parentheses around the disjunction, or you could distribute:

~(Ex)((Ax & Lxm) v (Ax & Tx))

Equivalently (good e.g. of quantifier conversion): (Ax) (Ax -> ~(Lxm \/ Tx))

8.12: (Ax)((Mx & Oxm) > Lmx)

8.13: ~(Ax)((Mx & Lxd)> (Oxm v Oxj))

8.14: (don’t forget ell for sila): (Ax)((Ax > Oxo) v Llx)

Also accepts: (Ax) (Ax >(Oxo v Llx))

8.15: (don’t forget the negations!): (Ex)(Ax & ~Lxp & ~Lpx)

8.16: (Ax)((Px & Lxm) <> Tx)

8.17: (Ex)(Mx & Oxj) > (Ex)(Mx & Oxj & Tx)