

6.3.x. Exercise questions

Use the system of derivations to establish each of the following:

1. $Fa \rightarrow Ga, Fa, a = b \Rightarrow Gb$
2. $Fa \rightarrow Ga, Fb, a = b \Rightarrow Ga$
3. $Fa \wedge a = gb \Rightarrow \neg F(gc) \rightarrow \neg b = c$
4. $Fa \rightarrow G(fa), G(fb) \rightarrow Hb, a = b \Rightarrow Fb \rightarrow Ha$
5. $fa = b, fc = d \Rightarrow (a = c \vee b = d) \rightarrow fa = d$

6. *The vice president is Dick Cheney*

George Bush is the president

The vice president is not from Texas

If George Bush is from Texas, then Dick Cheney is not the president