Inference at $*$ 1 0 1 1 1 1 1
of proof for Lemma Agatha Murder Puzzle (JProver)Lori2R:

1. Agatha hates Charles
2. Agatha hates Agatha
3. $\forall p$:Person. $\neg p$ is richer than Agatha $\Rightarrow$ The Butler hates p
4. $\forall p$:Person. Agatha hates p $\Rightarrow$ $\neg$Charles hates p
5. $\forall p$:Person. Agatha hates p $\Rightarrow$ The Butler hates p
6. $\forall p$:Person. $\neg p$ hates Agatha $\vee$ $\neg p$ hates The Butler $\vee$ $\neg p$ hates Charles
7. $\forall p$, q:Person. p kills q $\Rightarrow$ $\neg p$ is richer than q
8. $\forall p$, q:Person. p kills q $\Rightarrow$ p hates q
9. $\neg$The Butler is richer than Agatha $\Rightarrow$ The Butler hates The Butler
10. Agatha hates Agatha $\Rightarrow$ $\neg$Charles hates Agatha
11. Agatha hates Agatha $\Rightarrow$ The Butler hates Agatha
12. Agatha hates Charles $\Rightarrow$ The Butler hates Charles
13. $\forall q$:Person. The Butler kills q $\Rightarrow$ $\neg$The Butler is richer than q

$\vdash$ $\neg$The Butler kills Agatha & $\neg$Charles kills Agatha
by allL (13) Agatha

1:
14. The Butler kills Agatha $\Rightarrow$ $\neg$The Butler is richer than Agatha
$\vdash$ $\neg$The Butler kills Agatha & $\neg$Charles kills Agatha

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http://www.nuprl.org/FDLcontent/p0_1056173_/
p22_386197_{Agatha!Murder!Puzzle!!JProver!Lori2R}1_0_1_1_1_1_1.html