

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

⊢ Agatha hates Charles & Agatha hates Agatha
& ($\forall p:\text{Person}. \neg p \text{ is richer than Agatha} \Rightarrow \text{The Butler hates } p$)
& ($\forall p:\text{Person}. \text{Agatha hates } p \Rightarrow \neg\text{Charles hates } p$)
& ($\forall p:\text{Person}. \text{Agatha hates } p \Rightarrow \text{The Butler hates } p$)
& ($\forall p:\text{Person}. p \text{ likes Agatha} \vee p \text{ likes The Butler} \vee p \text{ likes Charles}$)
& ($\forall p, q:\text{Person}. p \text{ kills } q \Rightarrow \neg p \text{ is richer than } q$)
& ($\forall p, q:\text{Person}. p \text{ kills } q \Rightarrow p \text{ hates } q$)
 \Rightarrow The Butler did not kill Agatha & Charles did not kill Agatha
by Unfolds “likes notkills“ 0 THEN impR THEN Repeat (andL 1)

1:

1. Agatha hates Charles
 2. Agatha hates Agatha
 3. $\forall p:\text{Person}. \neg p \text{ is richer than Agatha} \Rightarrow \text{The Butler hates } p$
 4. $\forall p:\text{Person}. \text{Agatha hates } p \Rightarrow \neg\text{Charles hates } p$
 5. $\forall p:\text{Person}. \text{Agatha hates } p \Rightarrow \text{The Butler hates } p$
 6. $\forall p:\text{Person}. \neg p \text{ hates Agatha} \vee \neg p \text{ hates The Butler} \vee \neg p \text{ hates Charles}$
 7. $\forall p, q:\text{Person}. p \text{ kills } q \Rightarrow \neg p \text{ is richer than } q$
 8. $\forall p, q:\text{Person}. p \text{ kills } q \Rightarrow p \text{ hates } q$
- ⊢ $\neg\text{The Butler kills Agatha} \ \& \ \neg\text{Charles kills Agatha}$