Problem chi

$$R_0, X \vdash_{\text{ipl}} \tilde{g}\,?$$

Proved

Clauses in R_0: 17

Clauses in X: 6

Atoms: 16

Calls to the SAT-solver: 13

Added clauses (= YES answers): 6

Generated worlds (= NO answers): 6

Problem description

Flat clauses R_0 (17):

1. $\tilde{p}_1 \wedge \tilde{p}_2 \to \tilde{p}_0$
2. $\tilde{p}_3 \to p_2$
3. $\tilde{p}_3 \to p_3$
4. $\tilde{p}_4 \to p_1$
5. $\tilde{p}_4 \to \tilde{p}_3$
6. $\tilde{p}_0 \to \tilde{p}_4$
7. $\tilde{p}_6 \wedge \tilde{p}_7 \to \tilde{p}_5$
8. $\tilde{p}_5 \to \tilde{p}_4$
9. $\tilde{p}_9 \wedge \tilde{p}_{10} \to \tilde{p}_8$
10. $\tilde{p}_8 \to \tilde{p}_4$
11. $p_1 \wedge p_2 \wedge p_3 \to \tilde{g}$
12. $p_2 \to \tilde{p}_7$
13. $p_1 \to \tilde{p}_9$
14. $p_3 \to \tilde{p}_6$
15. $p_1 \to \tilde{p}_2$
16. $p_3 \to \tilde{p}_{10}$

17. $p_2 \to \tilde{p}_1$

Implication clauses X (6):

$\lambda_0 = (p_3 \to p_2) \to \tilde{p}_7$

$\lambda_1 = (p_3 \to p_1) \to \tilde{p}_9$

$\lambda_2 = (p_2 \to p_3) \to \tilde{p}_6$

$\lambda_3 = (p_2 \to p_1) \to \tilde{p}_2$

$\lambda_4 = (p_1 \to p_3) \to \tilde{p}_{10}$

$\lambda_5 = (p_1 \to p_2) \to \tilde{p}_1$

Added clauses (6):

$\varphi_0 = \tilde{p}_6 \to \tilde{p}_2$

$\varphi_1 = \tilde{p}_{10} \to \tilde{p}_1$

$\varphi_2 = \tilde{p}_7$

$\varphi_3 = \tilde{p}_9$

$\varphi_4 = \tilde{p}_1 \to \tilde{p}_{10}$

$\varphi_5 = \tilde{p}_6$