

t74_rewrite3

(TMJ21S2V92oTsUHMjsMyVPQjS8a6gn2pkTh)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k8_afinsq_1 X2)) \Rightarrow (\forall X4. (m1_subset_1 X4 \\
& (k8_afinsq_1 X2)) \Rightarrow (\forall X5. (m1_subset_1 X5 (k1_zfmisc_1 (\\
& k8_afinsq_1 X2))) \Rightarrow (\forall X6. ((\neg v2_struct_0 X6) \wedge (l1_rewrite3 \\
& X6 X5)) \Rightarrow ((r1_rewrite3 X5 X6 X0 X3 X1) \Rightarrow (r1_rewrite1 (k1_rewrite3 \\
& X2 X5 X6) (k4_tarski X0 (k1_flang_1 X2 X3 X4)) (k4_tarski X1 X4)))))) \\
& \tag{1}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k8_afinsq_1 X0))) \Rightarrow (\forall X2. (l1_rewrite3 X2 X1) \Rightarrow (\forall X3. \\
& \forall X4. \forall X5. \forall X6. (r2_rewrite3 X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow \\
& (\exists X7. (m1_subset_1 X7 (k8_afinsq_1 X0)) \wedge (\exists X8. (m1_subset_1 \\
& X8 (k8_afinsq_1 X0)) \wedge ((X7 = X6) \wedge ((r1_rewrite3 X1 X2 X3 X8 X5) \wedge (X4 = \\
& k1_flang_1 X0 X8 X7)))))) \\
& \tag{2}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (\neg v1_xboole_0 \\
& X4) \Rightarrow (\forall X5. (m1_subset_1 X5 (k1_zfmisc_1 (k8_afinsq_1 X4))) \Rightarrow \\
& (\forall X6. ((\neg v2_struct_0 X6) \wedge (l1_rewrite3 X6 X5)) \Rightarrow ((r2_rewrite3 \\
& X4 X5 X6 X0 X1 X2 X3) \Rightarrow (r1_rewrite1 (k1_rewrite3 X4 X5 X6) (k4_tarski \\
& X0 X1) (k4_tarski X2 X3))))))
\end{aligned}$$