

t22_rewrite3 (TM- TUPDwPX9boSF5jmkGCp88gf8DQyiKutxy)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(l1_rewrite3 X2 X1) \Rightarrow (\forall X3. \\
& \quad \forall X4.\forall X5.\forall X6.(r2_rewrite3 X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow \\
& \quad (\exists X7.(m1_subset_1 X7 (k8_afinsq_1 X0)) \wedge (\exists X8.(m1_subset_1 \\
& \quad X8 (k8_afinsq_1 X0)) \wedge ((X7 = X6) \wedge ((r1_rewrite3 X1 X2 X3 X8 X5) \wedge (X4 = \\
& \quad k1_flang_1 X0 X8 X7)))))))))
\end{aligned} \tag{1}$$

Theorem 1

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