

t30_rewrite2 (TM- GYG5bPMgmmMkvMvZxJr1UDD7KWAmAovcfZ)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $r2_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow (\forall X5. \\ & (m1_subset_1 X5 (k8_afinsq_1 X0)) \Rightarrow ((r2_rewrite2 X0 X1 X2 X3) \Rightarrow (\\ & r2_rewrite2 X0 X1 (k1_flang_1 X0 (k1_flang_1 X0 X4 X2) X5) (k1_flang_1 \\ & X0 (k1_flang_1 X0 X4 X3) X5))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (m1_subset_1 (k7_rewrite2 \\ & X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 \\ & X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow \\ & ((X2 = k7_rewrite2 X0 X1) \Leftrightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\ & X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (k8_afinsq_1 X0)) \Rightarrow ((k1_domain_1 \\ & (k8_afinsq_1 X0) (k8_afinsq_1 X0) X3 X4 \in X2) \Leftrightarrow (r2_rewrite2 X0 X1 \\ & X3 X4)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\
& \quad X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\
& X0)) \Rightarrow ((r2_rewrite2 X0 X1 X2 X3) \Leftrightarrow (\exists X4. (m1_subset_1 X4 (k8_afinsq_1 \\
& \quad X0)) \wedge (\exists X5. (m1_subset_1 X5 (k8_afinsq_1 X0)) \wedge (\exists X6. \\
& \quad (m1_subset_1 X6 (k8_afinsq_1 X0)) \wedge (\exists X7. (m1_subset_1 X7 \\
& \quad (k8_afinsq_1 X0)) \wedge ((X2 = k1_flang_1 X0 (k1_flang_1 X0 X4 X6) X5) \wedge \\
& \quad ((X3 = k1_flang_1 X0 (k1_flang_1 X0 X4 X7) X5) \wedge (r1_rewrite2 X0 X1 \\
& \quad X6 X7))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\
& \quad X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\
& X0)) \Rightarrow ((r1_rewrite2 X0 X1 X2 X3) \Leftrightarrow (k1_domain_1 (k8_afinsq_1 X0) \\
& \quad (k8_afinsq_1 X0) X2 X3 \in X1))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& \quad (k8_afinsq_1 X0) (k8_afinsq_1 X0)))) \Rightarrow (\forall X2. (m1_subset_1 \\
& \quad X2 (k8_afinsq_1 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 (k8_afinsq_1 \\
& X0)) \Rightarrow ((r2_rewrite2 X0 (k7_rewrite2 X0 X1) X2 X3) \Rightarrow (r2_rewrite2 \\
& \quad X0 X1 X2 X3))))
\end{aligned}$$