

t31_rewrite3
(TMY8ERKKZ1BZgzmCjofa4csrJWkd8gjp5Va)

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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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(k4_tarski\ X0\ X1 \in k2_zfmisc_1\ X2\ X3) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X3)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1_xboole_0\ X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ X2))) \Rightarrow (m1_subset_1\ X0\ X2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1\ X0\ X1) \Rightarrow ((v1_xboole_0\ X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1\ X0\ X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X0) \wedge ((m1_subset_1\ X1\ (k1_zfmisc_1\ (k8_afinsq_1\ X0)))) \wedge ((\neg v2_struct_0\ X2) \wedge (l1_rewrite3\ X2\ X1)))) \Rightarrow (m1_subset_1\ (k1_rewrite3\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X2)\ (k8_afinsq_1\ X0))\ (k2_zfmisc_1\ (u1_struct_0\ X2)\ (k8_afinsq_1\ X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarSKI X0 X1 = k2_tarSKI (k2_tarSKI X0 X1) (k1_tarSKI X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_zfmisc_1 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow (\exists X4.\exists X5.(X4 \in X0) \wedge ((X5 \in X1) \wedge (X3 = k4_tarSKI X4 X5)))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI X0 X1 = k2_tarSKI X1 X0 \quad (9)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k8_afinsq_1 X2))) \Rightarrow (\forall X4. \\ & ((\neg v2_struct_0 X4) \wedge (l1_rewrite3 X4 X3)) \Rightarrow (\neg (k4_tarSKI X0 X1 \in k1_rewrite3 \\ & X2 X3 X4) \wedge (\forall X5.(m1_subset_1 X5 (u1_struct_0 X4)) \Rightarrow (\forall X6. \\ & (m1_subset_1 X6 (k8_afinsq_1 X2)) \Rightarrow (\forall X7.(m1_subset_1 X7 \\ & (u1_struct_0 X4)) \Rightarrow (\forall X8.(m1_subset_1 X8 (k8_afinsq_1 X2)) \Rightarrow \\ & (\neg (X0 = k4_tarSKI X5 X6) \wedge (X1 = k4_tarSKI X7 X8)))))))))) \end{aligned}$$