

t28_rewrite3

(TMWifcg6UTjkKxixEcqPjpNUJ4shx6jYHUK)

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 $l1_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $u1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 (k8_afinsq_1 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k8_afinsq_1 X0)) \Rightarrow (((k1_flang_1 X0 X1 X2 = X1) \vee \\ & (k1_flang_1 X0 X2 X1 = X1)) \Rightarrow (X2 = k1_xboole_0))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.k2_flang_1 X0 = k4_afinsq_1 X0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_relat_1 (k4_afinsq_1 X0)) \wedge ((v5_relat_1 (k4_afinsq_1 \\ & X0) X0) \wedge ((v5_ordinal1 (k4_afinsq_1 X0)) \wedge ((v1_funct_1 (k4_afinsq_1 \\ & X0)) \wedge ((v1_xboole_0 (k4_afinsq_1 X0)) \wedge (v1_finset_1 (k4_afinsq_1 \\ & X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(l1_rewrite3 X2 X1) \Rightarrow (\forall X3. \\
& \quad \forall X4.\forall X5.\forall X6.(r2_rewrite3 X0 X1 X2 X3 X4 X5 X6) \Leftrightarrow \\
& \quad (\exists X7.(m1_subset_1 X7 (k8_afinsq_1 X0)) \wedge (\exists X8.(m1_subset_1 \\
& \quad X8 (k8_afinsq_1 X0)) \wedge ((X7 = X6) \wedge ((r1_rewrite3 X1 X2 X3 X8 X5) \wedge (X4 = \\
& \quad k1_flang_1 X0 X8 X7))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(l1_rewrite3 X1 X0) \Rightarrow (\forall X2.\forall X3. \\
& \quad \forall X4.(r1_rewrite3 X0 X1 X2 X3 X4) \Leftrightarrow (k4_tarski (k4_tarski X2 \\
& \quad X3) X4 \in u1_rewrite3 X0 X1))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in \\
& \quad X1) \Leftrightarrow (\exists X3.k4_tarski X3 X2 \in X0))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(X1 = k9_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow \\
& \quad (\exists X3.k4_tarski X2 X3 \in X0))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.k2_tarski X0 X1 = k2_tarski X1 X0 \tag{10}$$

Theorem 1

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(\neg v1_xboole_0 X3) \Rightarrow \\
& \quad (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (k8_afinsq_1 X3))) \Rightarrow \\
& \quad (\forall X5.(l1_rewrite3 X5 X4) \Rightarrow (\neg(\neg k2_flang_1 X3 \in k10_xtuple_0 \\
& \quad (k9_xtuple_0 (u1_rewrite3 X4 X5)))) \wedge (r2_rewrite3 X3 X4 X5 X0 X1 X2 \\
& \quad X1))))
\end{aligned}$$