

t21_yellow17

(TMbMRF2RJSSpMHAUMKZAMLMdXUcNhTAxRYs)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_waybel_3 : \iota \Rightarrow o$ be given. Let $v1_waybel18 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (r1_tarski X0 (k3_tarski X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (\\
& (v4_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v4_waybel_3 \\
& X1) \wedge (v1_waybel18 X1)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 X0) \Rightarrow (\\
& \forall X3.(m1_subset_1 X3 (u1_struct_0 (k4_waybel18 X0 X1 X2))) \Rightarrow \\
& (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (k2_waybel18 X0 X1))) \Rightarrow \\
& (((r1_tarski (k8_relset_1 (u1_struct_0 (k3_waybel18 X0 X1)) (\\
& u1_struct_0 (k4_waybel18 X0 X1 X2)) (k6_waybel18 X0 X1 X2) (k1_tarski \\
& X3)) (k3_tarski X4)) \wedge (\forall X5. \neg (X5 \in k2_waybel18 X0 X1) \wedge ((X5 \in \\
& X4) \wedge (r1_tarski (k8_relset_1 (u1_struct_0 (k3_waybel18 X0 X1)) \\
& (u1_struct_0 (k4_waybel18 X0 X1 X2)) (k6_waybel18 X0 X1 X2) (k1_tarski \\
& X3)) X5)))) \Rightarrow (r1_tarski (k2_struct_0 (k3_waybel18 X0 X1)) (k3_tarski \\
& X4))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (\\
& (v4_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v4_waybel_3 \\
& X1) \wedge (v1_waybel18 X1)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 X0) \Rightarrow (\\
& \forall X3.(m1_subset_1 X3 (u1_struct_0 (k4_waybel18 X0 X1 X2))) \Rightarrow \\
& (\forall X4. \neg (X4 \in k2_waybel18 X0 X1) \wedge ((r1_tarski (k8_relset_1 \\
& (u1_struct_0 (k3_waybel18 X0 X1)) (u1_struct_0 (k4_waybel18 X0 \\
& X1 X2)) (k6_waybel18 X0 X1 X2) (k1_tarski X3)) X4) \wedge ((X4 \neq k2_struct_0 \\
& (k3_waybel18 X0 X1)) \wedge (\forall X5.(m1_subset_1 X5 (k1_zfmisc_1 \\
& (u1_struct_0 (k4_waybel18 X0 X1 X2)))) \Rightarrow (\neg (X5 \neq k2_struct_0 (k4_waybel18 \\
& X0 X1 X2)) \wedge ((X3 \in X5) \wedge ((v3_pre_topc X5 (k4_waybel18 X0 X1 X2)) \wedge (\\
& X4 = k8_relset_1 (u1_struct_0 (k3_waybel18 X0 X1)) (u1_struct_0 \\
& (k4_waybel18 X0 X1 X2)) (k6_waybel18 X0 X1 X2) X5)))))))))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge (\\
& (v4_relat_1 X1 X0) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 X0) \wedge ((v4_waybel_3 \\
& X1) \wedge (v1_waybel18 X1)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 X0) \Rightarrow (\\
& \forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (k2_waybel18 X0 X1))) \Rightarrow \\
& ((\forall X4.((v1_finset_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& X3))) \Rightarrow (\neg r1_tarski (k2_struct_0 (k3_waybel18 X0 X1)) (k3_tarski \\
& X4))) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 (k4_waybel18 \\
& X0 X1 X2))) \Rightarrow (\forall X5.((v1_finset_1 X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 \\
& X3))) \Rightarrow (\neg r1_tarski (k8_relset_1 (u1_struct_0 (k3_waybel18 X0 \\
& X1)) (u1_struct_0 (k4_waybel18 X0 X1 X2)) (k6_waybel18 X0 X1 X2) \\
& (k1_tarski X4)) (k3_tarski X5)) \wedge (\forall X6.(m1_subset_1 X6 (\\
& k1_zfmisc_1 (u1_struct_0 (k4_waybel18 X0 X1 X2)))) \Rightarrow (\neg (X6 \neq k2_struct_0 \\
& (k4_waybel18 X0 X1 X2)) \wedge ((X4 \in X6) \wedge ((k8_relset_1 (u1_struct_0 \\
& (k3_waybel18 X0 X1)) (u1_struct_0 (k4_waybel18 X0 X1 X2)) (k6_waybel18 \\
& X0 X1 X2) X6 \in X5) \wedge (v3_pre_topc X6 (k4_waybel18 X0 X1 X2)))))))))
\end{aligned}$$