

t29_cohsp_1

(TMQC7KF1qPbg8BUH8tbCY18GxX8FHoX2J15)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes1 : \iota \Rightarrow o$ be given. Let $v1_coh_sp : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8_cohsp_1 : \iota \Rightarrow o$ be given. Let $k6_cohsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_cohsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\
& X0))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge (v1_coh_sp \\
& X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 (k3_tarski X1)))) \Rightarrow (\neg (\forall X3.(X3 \in X2) \Rightarrow (v1_finset_1 (k1_xtuple_0 \\
& X3))) \wedge ((\forall X3.((v1_finset_1 X3) \wedge (m1_subset_1 X3 X0)) \Rightarrow (\\
& \forall X4.((v1_finset_1 X4) \wedge (m1_subset_1 X4 X0)) \Rightarrow ((r1_tarski \\
& X3 X4) \Rightarrow (\forall X5.(k4_tarski X3 X5 \in X2) \Rightarrow (k4_tarski X4 X5 \in X2)))))) \wedge \\
& ((\forall X3.((v1_finset_1 X3) \wedge (m1_subset_1 X3 X0)) \Rightarrow (\forall X4. \\
& \forall X5.((k4_tarski X3 X4 \in X2) \wedge (k4_tarski X3 X5 \in X2)) \Rightarrow (k2_tarski \\
& X4 X5 \in X1))) \wedge (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge \\
& ((v8_cohsp_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 \\
& X1)))))) \Rightarrow (\neg (X2 = k6_cohsp_1 X0 X1 X3) \wedge (\forall X4.(m1_subset_1 \\
& X4 X0) \Rightarrow (k3_funct_2 X0 X1 X3 X4 = k7_relat_1 X2 (k3_cohsp_1 X0 X4))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_tarski X1 X0 \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\ & X0))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge (v1_coh_sp \\ & X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 (k3_tarski X1)))) \Rightarrow (\neg(\forall X3.(X3 \in X2) \Rightarrow (v1_finset_1 (k1_xtuple_0 \\ & X3)))) \wedge ((\forall X3.((v1_finset_1 X3) \wedge (m1_subset_1 X3 X0)) \Rightarrow (\\ & \forall X4.((v1_finset_1 X4) \wedge (m1_subset_1 X4 X0)) \Rightarrow ((r1_tarski \\ & X3 X4) \Rightarrow (\forall X5.(k4_tarski X3 X5 \in X2) \Rightarrow (k4_tarski X4 X5 \in X2)))))) \wedge \\ & ((\forall X3.((v1_finset_1 X3) \wedge (m1_subset_1 X3 X0)) \Rightarrow (\forall X4. \\ & \forall X5.((k4_tarski X3 X4 \in X2) \wedge (k4_tarski X3 X5 \in X2)) \Rightarrow (k2_tarski \\ & X4 X5 \in X1)))) \wedge (\forall X3.((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge \\ & ((v8_cohsp_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 \\ & X1)))))) \Rightarrow (X2 \neq k6_cohsp_1 X0 X1 X3)))))) \end{aligned}$$