

t22_metrizts

(TMcbbVpatahxnoR2frEieWkco4vcXAn55Dp)

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Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $v3_pcomps_1 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_waybel23 : \iota \Rightarrow \iota$ be given. Let $k4_topgen_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge ((v3_pcomps_1 X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v1_finset_1 X1) \wedge (v1_card_1 X1)) \Rightarrow ((r1_ordinal1 \\
 & (k2_waybel23 X0) X1) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
 & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (((v1_tops_2 X2 X0) \wedge (\forall X3. \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X4. \\
 & (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (((X3 \in X2) \wedge (\\
 & X4 \in X2)) \Rightarrow ((X3 = X4) \vee (r1_xboole_0 X3 X4)))))) \Rightarrow ((k1_xboole_0 \in X2) \vee \\
 & (r1_ordinal1 (k1_card_1 X2) X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge ((v3_pcomps_1 X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v1_finset_1 X1) \wedge (v1_card_1 X1)) \Rightarrow ((r1_ordinal1 \\
 & (k4_topgen_1 X0) X1) \Rightarrow (r1_ordinal1 (k2_waybel23 X0) X1)))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v2_pre_topc X0) \wedge ((v3_pcomps_1 X0) \wedge (l1_pre_topc \\
 & X0))) \Rightarrow (\forall X1.((\neg v1_finset_1 X1) \wedge (v1_card_1 X1)) \Rightarrow ((\forall X2. \\
 & (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\
 & (((v1_tops_2 X2 X0) \wedge (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\
 & (u1_struct_0 X0))) \Rightarrow (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 \\
 & (u1_struct_0 X0)))) \Rightarrow (((X3 \in X2) \wedge (X4 \in X2)) \Rightarrow ((X3 = X4) \vee (r1_xboole_0 \\
 & X3 X4)))))) \Rightarrow ((k1_xboole_0 \in X2) \vee (r1_ordinal1 (k1_card_1 X2) X1)))) \Rightarrow \\
 & (r1_ordinal1 (k4_topgen_1 X0) X1)))
 \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc\ X0) \wedge ((v3_pcomps_1\ X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v1_finset_1\ X1) \wedge (v1_card_1\ X1)) \Rightarrow ((r1_ordinal1 \\ & (k2_waybel23\ X0\ X1) \Leftrightarrow (r1_ordinal1\ (k4_topgen_1\ X0\ X1))) \end{aligned}$$