

l35_metrizts

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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 $v1_metrizts : \iota \Rightarrow o$ be given. Let $v5_waybel23 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $m1_setfam_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge ((v3_pcomps_1 X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow (\forall X1.((\neg v1_finset_1 X1) \wedge (v1_card_1 X1)) \Rightarrow ((r1_ordinal1 \\ & (k2_waybel23 X0) X1) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (\neg (v1_tops_2 X2 X0) \wedge ((m1_setfam_1 \\ & X2 (u1_struct_0 X0)) \wedge (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (\neg (r1_tarski X3 X2) \wedge ((m1_setfam_1 \\ & X3 (u1_struct_0 X0)) \wedge (r1_ordinal1 (k1_card_1 X3) X1)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow ((v1_metrizts \\ & X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow (\neg (v1_tops_2 X1 X0) \wedge ((m1_setfam_1 X1 (u1_struct_0 X0)) \wedge \\ & (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 \\ & X0)))) \Rightarrow (\neg (r1_tarski X2 X1) \wedge ((m1_setfam_1 X2 (u1_struct_0 X0)) \wedge \\ & (r1_ordinal1 (k1_card_1 X2) k4_ordinal1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\neg v1_finset_1 k4_ordinal1 \quad (3)$$

Assume the following.

$$v1_card_1 k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v5_waybel23 X0) \Leftrightarrow (r1_ordinal1 (k2_waybel23 X0) k4_ordinal1)) \quad (5)$$

Theorem 1

$$\forall X0.((v2_pre_topc\ X0)\wedge((v3_pcomps_1\ X0)\wedge(l1_pre_topc\ X0)))\Rightarrow((v1_metrizts\ X0)\Leftrightarrow(v5_waybel23\ X0))$$