

t5_topgen_2
(TMKYN16CBiDKHUeQtaq5PU2MeGfLEAY4JyZ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_topgen_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_topgen_2 : \iota \Rightarrow \iota$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (v1_card_1 (k2_topgen_2 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (v1_card_1 X1) \Rightarrow ((X1 = k2_topgen_2 X0) \Leftrightarrow ((\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (r1_ordinal1 (k1_topgen_2 X0 X2) X1)) \wedge (\forall X2. \\ & (v1_card_1 X2) \Rightarrow ((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & (r1_ordinal1 (k1_topgen_2 X0 X3) X2)) \Rightarrow (r1_ordinal1 X1 X2)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (r1_ordinal1 (k1_topgen_2 \\ & X0 X1) (k2_topgen_2 X0))) \end{aligned}$$