

t45_flang_1

(TML95ALwDu14Hn8KxJ7Xo9Q8kfSMWH3Dr8n)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ (k3_catalan2 X0))) \Rightarrow ((X1 \in k8_flang_1 X0 X2) \Leftrightarrow (\exists X3. (v7_ordinal1 \\ X3) \wedge (X1 \in k7_flang_1 X0 X2 X3))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k3_catalan2 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k3_catalan2 X0)) \Rightarrow (\forall X4. (v7_ordinal1 X4) \Rightarrow \\ (\forall X5. (v7_ordinal1 X5) \Rightarrow (((X2 \in k7_flang_1 X0 X1 X4) \wedge (X3 \in \\ k7_flang_1 X0 X1 X5)) \Rightarrow (k1_flang_1 X0 X2 X3 \in k7_flang_1 X0 X1 (k2_xcmplx_0 \\ X4 X5)))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k2_xcmplx_0 X0 X1)) \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k3_catalan2 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k3_catalan2 X0)) \Rightarrow (((X2 \in k8_flang_1 X0 X1) \wedge (X3 \in \\ k8_flang_1 X0 X1)) \Rightarrow (k1_flang_1 X0 X2 X3 \in k8_flang_1 X0 X1)))) \end{aligned}$$