

t40_flang_1
(TMWSpUG22qXTwNvohPhDufTF65Y6bC6EiG7)

October 27, 2020

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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & \quad X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow (\forall X3. (v7_ordinal1 \\ & X3) \Rightarrow (k7_flang_1 X0 X1 (k2_xcmplx_0 X2 X3) = k6_flang_1 X0 (k7_flang_1 \\ & \quad X0 X1 X2) (k7_flang_1 X0 X1 X3)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k2_xcmplx_0 X0 X1)) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \wedge (v7_ordinal1 X2)) \Rightarrow (m1_subset_1 (k7_flang_1 X0 X1 X2) (k1_zfmisc_1 (k3_catalan2 X0))) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & \quad X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k3_catalan2 \\ & \quad X0))) \Rightarrow (\forall X3. (m1_subset_1 X3 (k1_zfmisc_1 (k3_catalan2 \\ & \quad X0))) \Rightarrow ((X3 = k6_flang_1 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\exists X5. \\ & \quad (m1_subset_1 X5 (k3_catalan2 X0)) \wedge (\exists X6. (m1_subset_1 X6 \\ & \quad (k3_catalan2 X0)) \wedge ((X5 \in X1) \wedge ((X6 \in X2) \wedge (X4 = k1_flang_1 X0 X5 X6)))))))))) \end{aligned} \tag{4}$$

Theorem 1

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