

t27_altcat_3

(TMGTEuf8BaPEpt9JJXEcG9qxoiz8C9dKY3M)

October 27, 2020

Let $l1_altcat_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v7_altcat_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_altcat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_zfmisc_1 X0) \Leftrightarrow (\forall X1. \forall X2. ((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (X1 = X2)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_altcat_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow ((v7_altcat_3 X1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (\exists X3. (m1_subset_1 X3 (k1_altcat_1 X0 X2 X1)) \wedge ((X3 \in \\ k1_altcat_1 X0 X2 X1) \wedge (v1_zfmisc_1 (k1_altcat_1 X0 X2 X1))))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0. (l1_altcat_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow ((v7_altcat_3 X1 X0) \Leftrightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (\exists X3. (m1_subset_1 X3 (k1_altcat_1 X0 X2 X1)) \wedge ((X3 \in \\ k1_altcat_1 X0 X2 X1) \wedge (\forall X4. (m1_subset_1 X4 (k1_altcat_1 \\ X0 X2 X1)) \Rightarrow ((X4 \in k1_altcat_1 X0 X2 X1) \Rightarrow (X3 = X4)))))))) \end{aligned}$$