

t5_isocat_2 (TMceZf- TupXXR8JKys75SMahMtxSoDDSumE5)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v2_cat_1 : \iota \Rightarrow o$ be given. Let $v3_cat_1 : \iota \Rightarrow o$ be given. Let $v4_cat_1 : \iota \Rightarrow o$ be given. Let $v5_cat_1 : \iota \Rightarrow o$ be given. Let $v6_cat_1 : \iota \Rightarrow o$ be given. Let $l1_cat_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_cat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_cat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_graph_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $l1_graph_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_cat_1 \\ X0) \wedge ((v3_cat_1 X0) \wedge ((v4_cat_1 X0) \wedge ((v5_cat_1 X0) \wedge ((v6_cat_1 \\ X0) \wedge (l1_cat_1 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u4_struct_0 X0)) \Rightarrow ((k4_graph_1 \\ X0 X2 = X1) \Rightarrow (k1_cat_1 X0 X2 (k4_cat_1 X0 X1) = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l1_cat_1 X0) \Rightarrow (l1_graph_1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (&((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge \\ (l1_graph_1 X0))) \wedge (m1_subset_1 X1 (u4_struct_0 X0))) \Rightarrow (m1_subset_1 \\ (k4_graph_1 X0 X1) (u1_struct_0 X0)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_cat_1 \\ X0) \wedge ((v3_cat_1 X0) \wedge ((v4_cat_1 X0) \wedge ((v5_cat_1 X0) \wedge ((v6_cat_1 \\ X0) \wedge (l1_cat_1 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u4_struct_0 \\ X0)) \Rightarrow (k1_cat_1 X0 X1 (k4_cat_1 X0 (k4_graph_1 X0 X1)) = X1)) \end{aligned}$$