

t45_graph_5
(TMcy7cXfdiqZvRV1f77torPHJCr2dNSxTUF)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_graph_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_graph_5 : \iota \Rightarrow \iota$ be given. Let $v7_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_graph_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3.k5_graph_5 X0 X1 X2 X3 = ReplSep (\\ & toset (\lambda X4 : \iota.(v7_graph_1 X4 X0) \wedge ((v1_graph_4 X4 X0) \wedge (m2_graph_1 \\ & X4 X0)))) (\lambda X4 : \iota.r4_graph_5 X0 X4 X1 X2 X3) (\lambda X4 : \iota.X4)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (k7_graph_5 \\ & X0 = ReplSep (toset (\lambda X1 : \iota.(v7_graph_1 X1 X0) \wedge ((v1_graph_4 \\ & X1 X0) \wedge (m2_graph_1 X1 X0)))) (\lambda X1 : \iota.True) (\lambda X1 : \iota.X1)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1) \wedge (l1_graph_1 X1)) \Rightarrow (\\ & \forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X1)) \Rightarrow (r1_tarski (k5_graph_5 X1 X2 X3 X0) (k7_graph_5 \\ & X1)))) \end{aligned}$$