

t30_graph_5
(TMQso3qk6y2M2PxyjRFF9NTsQoRuaygjf16)

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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 $k3_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (k3_graph_5 X0 X1 X2 = ReplSep (toset (\lambda X3 : \\ & \iota.(v7_graph_1 X3 X0) \wedge (m2_graph_1 X3 X0)))) (\lambda X3 : \iota.r1_graph_5 \\ & X0 X3 X1 X2) (\lambda X3 : \iota.X3)))) \end{aligned} \quad (1)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2_struct_0 X1) \wedge (l1_graph_1 X1)) \Rightarrow (\\ & \forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X1)) \Rightarrow ((X0 \in k3_graph_5 X1 X2 X3) \Leftrightarrow (\exists X4.((\\ & v7_graph_1 X4 X1) \wedge (m2_graph_1 X4 X1)) \wedge ((X4 = X0) \wedge (r1_graph_5 X1 \\ & X4 X2 X3)))))) \end{aligned}$$