

t38_graph_3 (TMT6ALcvv1ZjcsRnAi42uciFntkwso3efUN)

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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 $v2_funct_1 : \iota \Rightarrow o$ be given. Let $m2_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_graph_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_graph_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_graph_1 X3 X0) \Rightarrow (m1_graph_1 \\ & X3 (k8_graph_3 X0 X1 X2))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m2_graph_1 X1 X0) \Leftrightarrow (m1_graph_1 X1 X0)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (l1_graph_1 \\ & X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\ & X0)))) \Rightarrow ((\neg v2_struct_0 (k8_graph_3 X0 X1 X2)) \wedge ((v1_graph_1 (k8_graph_3 \\ & X0 X1 X2)) \wedge (l1_graph_1 (k8_graph_3 X0 X1 X2)))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3. ((v2_funct_1 X3) \wedge (m2_graph_1 \\ & X3 X0)) \Rightarrow ((v2_funct_1 X3) \wedge (m2_graph_1 X3 (k8_graph_3 X0 X1 X2))))) \end{aligned}$$