

t40_graph_5

(TMNB5ckwXQZifv48wEc9MWDRBWyHE4chubk)

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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 $v7_graph_1 : \iota \Rightarrow \iota \Rightarrow o$ 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. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_graph_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_graph_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_graph_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $u2_graph_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
 & (u1_struct_0 X0)) \Rightarrow (k4_graph_5 X0 X1 X2 = ReplSep (toset (\lambda X3 : \\
 & \iota.(v7_graph_1 X3 X0) \wedge ((v1_graph_4 X3 X0) \wedge (m2_graph_1 X3 X0)))) \\
 & (\lambda X3 : \iota.r3_graph_5 X0 X3 X1 X2) (\lambda X3 : \iota.X3))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
 & ((v7_graph_1 X1 X0) \wedge (m2_graph_1 X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\
 & X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
 & X0)) \Rightarrow ((r3_graph_5 X0 X1 X2 X3) \Leftrightarrow ((v1_graph_4 X1 X0) \wedge (r1_graph_5 \\
 & X0 X1 X2 X3))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1.(r1_tarski X0 X1) \Leftrightarrow (\forall X2.(X2 \in X0) \Rightarrow (X2 \in X1)) \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& ((v7_graph_1 X1 X0) \wedge (m2_graph_1 X1 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
& X0)) \Rightarrow ((r1_graph_5 X0 X1 X2 X3) \Leftrightarrow ((X1 \neq k1_xboole_0) \wedge ((k1_funct_1 \\
& (u1_graph_1 X0) (k1_funct_1 X1 np_1) = X2) \wedge (k1_funct_1 (u2_graph_1 \\
& X0) (k1_funct_1 X1 (k3_finseq_1 X1)) = X3))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& ((v7_graph_1 X1 X0) \wedge (m2_graph_1 X1 X0)) \Rightarrow (k6_graph_5 X0 X1 = ReplSep \\
& (toset (\lambda X2 : \iota.(v7_graph_1 X2 X0) \wedge ((v1_graph_4 X2 X0) \wedge (m2_graph_1 \\
& X2 X0)))) (\lambda X2 : \iota.(X2 \neq k1_xboole_0) \wedge ((k1_funct_1 (u1_graph_1 \\
& X0) (k1_funct_1 X2 np_1) = k1_funct_1 (u1_graph_1 X0) (k1_funct_1 \\
& X1 np_1)) \wedge ((k1_funct_1 (u2_graph_1 X0) (k1_funct_1 X2 (k3_finseq_1 \\
& X2)) = k1_funct_1 (u2_graph_1 X0) (k1_funct_1 X1 (k3_finseq_1 X1))) \wedge \\
& (r1_tarski (k10_xtuple_0 X2) (k10_xtuple_0 X1)))))) (\lambda X2 : \iota. \\
& X2))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\
& (u1_struct_0 X0)) \Rightarrow (\forall X3.((v7_graph_1 X3 X0) \wedge (m2_graph_1 \\
& X3 X0)) \Rightarrow ((r1_graph_5 X0 X3 X1 X2) \Rightarrow (r1_tarski (k6_graph_5 X0 X3) \\
& (k4_graph_5 X0 X1 X2))))))
\end{aligned}$$