

t25_graphsp (TMFTBEUBC- GoFpc7pR9o2GzU6DWDmAvBkicT)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_graph_1 : \iota \Rightarrow o$ 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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_graph_5 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_graph_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k10_graphsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v2_struct_0 \\ & X0) \wedge ((v2_graph_1 X0) \wedge (l1_graph_1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 \\ & X0)) \wedge ((m1_subset_1 X2 (u1_struct_0 X0)) \wedge ((v1_funct_1 X3) \wedge ((\\ & v1_funct_2 X3 (u4_struct_0 X0) k8_graph_5) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u4_struct_0 X0) k8_graph_5)))))))) \Rightarrow (k12_graphsp \\ & X0 X1 X2 X3 = k11_graphsp X0 X1 X2 X3) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (((\neg v2_struct_0 X0) \wedge ((v2_graph_1 X0) \wedge (l1_graph_1 \\ & X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. ((v1_relat_1 X3) \wedge \\ & (v1_funct_1 X3)) \Rightarrow (((\exists X4. (X4 \in u4_struct_0 X0) \wedge (r1_graph_4 \\ & X0 X1 X2 X4)) \Rightarrow (k11_graphsp X0 X1 X2 X3 = k1_funct_1 X3 (k10_graphsp \\ & X0 X1 X2))) \wedge ((\forall X4. \neg (X4 \in u4_struct_0 X0) \wedge (r1_graph_4 X0 \\ & X1 X2 X4)) \Rightarrow (k11_graphsp X0 X1 X2 X3 = k1_real_1 np_1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_graph_1 X0) \wedge (l1_graph_1 \\
& X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((\exists X3.(X3 \in u4_struct_0 \\
& X0) \wedge (r1_graph_4 X0 X1 X2 X3)) \Rightarrow (\forall X3.(X3 = k10_graphsp X0 X1 \\
& X2) \Leftrightarrow (\exists X4.(X3 = X4) \wedge ((X4 \in u4_struct_0 X0) \wedge (r1_graph_4 X0 \\
& X1 X2 X4))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_graph_1 X1) \wedge (\\
& l1_graph_1 X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (\forall X4.((\\
& v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u4_struct_0 X1) k8_graph_5) \wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (u4_struct_0 X1) k8_graph_5)))))) \Rightarrow \\
& (((X0 \in u4_struct_0 X1) \wedge (r1_graph_4 X1 X2 X3 X0)) \Rightarrow (k12_graphsp \\
& X1 X2 X3 X4 = k1_funct_1 X4 X0))))
\end{aligned}$$