

l66_graph_3 (TMQuRCLycMMTk- JeYyAoBkyzs28GVWJJ7ELZ)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_graph_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_graph_3 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_graph_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_graph_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_graph_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k10_subset_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 \\
& (u4_struct_0 X0) (k9_graph_3 X0)) \Rightarrow ((X1 \in k1_graph_3 X0 (k10_xtuple_0 \\
& X2)) \Rightarrow ((\neg v1_xboole_0 (ReplSep (toset (\lambda X3 : \iota.m2_finseq_2 \\
& X3 (u4_struct_0 X0) (k9_graph_3 X0))) (\lambda X3 : \iota.(k10_xtuple_0 \\
& X3 = k10_xtuple_0 X2) \wedge (\exists X4.(m2_finseq_1 X4 (u1_struct_0 \\
& X0)) \wedge ((r1_graph_2 X0 X4 X3) \wedge (k1_funct_1 X4 np_1 = X1)))) (\lambda X3 : \\
& \iota.X3))) \wedge (m1_subset_1 (ReplSep (toset (\lambda X3 : \iota.m2_finseq_2 \\
& X3 (u4_struct_0 X0) (k9_graph_3 X0))) (\lambda X3 : \iota.(k10_xtuple_0 \\
& X3 = k10_xtuple_0 X2) \wedge (\exists X4.(m2_finseq_1 X4 (u1_struct_0 \\
& X0)) \wedge ((r1_graph_2 X0 X4 X3) \wedge (k1_funct_1 X4 np_1 = X1)))) (\lambda X3 : \\
& \iota.X3)) (k1_zfmisc_1 (k9_graph_3 X0)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.m1_subset_1 (k10_subset_1 X0) X0 \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m2_finseq_2 X2 \\
& (u4_struct_0 X0) (k9_graph_3 X0)) \Rightarrow ((X1 \in k1_graph_3 X0 (k10_xtuple_0 \\
& X2)) \Rightarrow (k10_graph_3 X0 X1 X2 = k10_subset_1 (ReplSep (toset (\lambda X3 : \\
& \iota.(m2_finseq_2 X3 (u4_struct_0 X0) (k9_graph_3 X0))) (\lambda X3 : \\
& \iota.(k10_xtuple_0 X3 = k10_xtuple_0 X2) \wedge (\exists X4.(m2_finseq_1 \\
& X4 (u1_struct_0 X0)) \wedge ((r1_graph_2 X0 X4 X3) \wedge (k1_funct_1 X4 np_1 = \\
& X1)))) (\lambda X3 : \iota.X3))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_graph_1 X0)) \Rightarrow (\forall X1. \\
& (m2_finseq_2 X1 (u4_struct_0 X0) (k9_graph_3 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((X2 \in k1_graph_3 X0 (k10_xtuple_0 \\
& X1)) \Rightarrow (k10_xtuple_0 (k10_graph_3 X0 X2 X1) = k10_xtuple_0 X1)))
\end{aligned}$$