t35_graph_3 (TM-FGWh3CKg3YemAN4Q34rx6BrcDMkGoNu5w)

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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 $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_graph\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_graph\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_graph\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_graph\_1 : \iota \Rightarrow o$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(k9\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1) = X0) \wedge (r1\_tarski\ (k10\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1))\ (k1\_tarski\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \Rightarrow ((\neg X0 \in k9\_xtuple\_0\ X1) \Rightarrow (k1\_funct\_1\ (k1\_funct\_4\ X2\ X1)\ X0 = k1\_funct\_1\ X2\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k7\_funcop\_1\ X0\ X1 = k2\_funcop\_1\ X0\ X1 \tag{3}$$

Assume the following.

$$\forall X0.(l1\_graph\_1\ X0) \Rightarrow ((v1\_funct\_1\ (u2\_graph\_1\ X0)) \wedge ((v1\_funct\_2\ (u2\_graph\_1\ X0)\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ (u2\_graph\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_graph\_1\ X0)\Rightarrow((v1\_funct\_1\ (u1\_graph\_1\ X0))\wedge((v1\_funct\_2\ (u1\_graph\_1\ X0)\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ (u1\_graph\_1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u4\_struct\_0\ X0)\ (u1\_struct\_0\ X0))))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_graph\_1\ X0))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow((\neg v2\_struct\_0\ (k8\_graph\_3\ X0\ X1\ X2))\wedge((v1\_graph\_1\ (k8\_graph\_3\ X0\ X1\ X2))\wedge(l1\_graph\_1\ (k8\_graph\_3\ X0\ X1\ X2)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_funct\_1\ (k7\_funcop\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k7\_funcop\_1\ X0\ X1)\ X0\ (k1\_tarski\ X1))\wedge(m1\_subset\_1\ (k7\_funcop\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1\ X0\ X1 = k7\_funcop\_1\ (k1\_tarski\ X0)\ X1 \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_graph\_1\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.((\neg v2\_struct\_0\ X3)\wedge((v1\_graph\_1\ X3)\wedge(l1\_graph\_1\ X3)))\Rightarrow((X3 = k8\_graph\_3\ X0\ X1\ X2)\Leftrightarrow((u1\_struct\_0\ X3 = u1\_struct\_0\ X0)\wedge((u4\_struct\_0\ X3 = k2\_xboole\_0\ (u4\_struct\_0\ X0)\ (k1\_tarski\ (u4\_struct\_0\ X0)))\wedge((u1\_graph\_1\ X3 = k1\_funct\_4\ (u1\_graph\_1\ X0)\ (k16\_funcop\_1\ (u4\_struct\_0\ X0)\ X1))\wedge(u2\_graph\_1\ X3 = k1\_funct\_4\ (u2\_graph\_1\ X0)\ (k16\_funcop\_1\ (u4\_struct\_0\ X0)\ X2)))))))))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.k2\_funcop\_1\ X0\ X1 = k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1\_tarski\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(X2 = X0)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \tag{13}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_graph\_1\ X1)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X1)) \Rightarrow ((X0 \in u4\_struct\_0\ X1) \Rightarrow ((k1\_funct\_1\ (u1\_graph\_1\ (k8\_graph\_3\ X1\ X2\ X3))\ X0 = k1\_funct\_1\ (u1\_graph\_1\ X1)\ X0) \wedge (k1\_funct\_1\ (u2\_graph\_1\ (k8\_graph\_3\ X1\ X2\ X3))\ X0 = k1\_funct\_1\ (u2\_graph\_1\ X1)\ X0)))))$$