t17_graph_3 (TMSvG5NKV5EgL5dq366wv6AsiA1KkSrCyvr)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_graph\_1 : \iota \Rightarrow o$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_graph\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_graph\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u2\_graph\_1 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_graph\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_graph\_1\ X0)) \Rightarrow (\forall X1.\ (X1 \in u4\_struct\_0\ X0) \Rightarrow ((k1\_funct\_1\ (u1\_graph\_1\ X0)\ X1 \in u1\_struct\_0\ X0) \wedge (k1\_funct\_1\ (u2\_graph\_1\ X0)\ X1 \in u1\_struct\_0\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X0) \wedge (l1\_graph\_1\ X0)) \Rightarrow (k1\_graph\_3\ X0\ X1 = k5\_graph\_2\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_graph\_1\ X0)) \Rightarrow (\forall X1.\ k5\_graph\_2\ X0\ X1 = ReplSep\ (toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)))\ (\lambda X2 : \iota.\exists X3.(m1\_subset\_1\ X3\ (u4\_struct\_0\ X0)) \wedge ((X3 \in X1) \wedge ((X2 = k1\_funct\_1\ (u1\_graph\_1\ X0)\ X3) \vee (X2 = k1\_funct\_1\ (u2\_graph\_1\ X0)\ X3))))\ (\lambda X2 : \iota.X2)) \tag{6}$$

Assume the following.

$$k1\_xboole\_0 = the\ (\lambda X0 : \iota.v1\_xboole\_0\ X0) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_graph\_1\ X0)) \Rightarrow (\forall X1.\ \forall X2.\neg(X1 \in u4\_struct\_0\ X0) \wedge ((X1 \in X2) \wedge (v1\_xboole\_0\ (k1\_graph\_3\ X0\ X2))))$$