t14_net_1 (TMQ6JgjJmeaALyU9RHxSGH2mEg2jTvpNsah)

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Let $v1\_net\_1 : \iota \Rightarrow o$ be given. Let $l1\_petri : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_net\_1 : \iota \Rightarrow \iota$ be given. Let $u4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_net\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_net\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_net\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_net\_1\ X2) \wedge (l1\_petri\ X2)) \Rightarrow (((k4\_tarski\ X0\ X1 \in k1\_net\_1\ X2) \wedge (X0 \in u4\_struct\_0\ X2)) \Rightarrow (X1 \in u1\_struct\_0\ X2)) \tag{1}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k2\_net\_1\ X0)) \Rightarrow (\forall X2.(X2 = k4\_net\_1\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in k2\_net\_1\ X0) \wedge (k4\_tarski\ X1\ X3 \in k1\_net\_1\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_net\_1\ X0) \wedge (l1\_petri\ X0)) \Rightarrow (\forall X1.\forall X2.(r2\_net\_1\ X0\ X1\ X2) \Leftrightarrow ((k4\_tarski\ X1\ X2 \in k1\_net\_1\ X0) \wedge (X1 \in u4\_struct\_0\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_petri\ X0) \Rightarrow (k2\_net\_1\ X0 = k2\_xboole\_0\ (u1\_struct\_0\ X0)\ (u4\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ X1\ X0 \tag{6}$$

Theorem 1

$$\forall X0.\forall X1.((v1\_net\_1\ X1)\wedge(l1\_petri\ X1))\Rightarrow(\forall X2.\ (m1\_subset\_1\ X2\ (k2\_net\_1\ X1))\Rightarrow((X2\in u4\_struct\_0\ X1)\Rightarrow((X0\in k4\_net\_1\ X1\ X2)\Leftrightarrow(r2\_net\_1\ X1\ X2\ X0))))$$