

t9\_petri  
(TMZPxsuqnKjjK1TGxj6U1Mt59biWq1psoum)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v11\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_petri : \iota \Rightarrow o$  be given. Let  $v3\_petri : \iota \Rightarrow o$  be given. Let  $l1\_petri : \iota \Rightarrow o$  be given. Let  $k6\_petri : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_petri : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u2\_petri : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \neg(X0 \neq k1\_xboole\_0) \wedge (\forall X1. \neg(X1 \in X0) \wedge (\forall X2. \\ & \forall X3. \neg((X2 \in X0) \vee (X3 \in X0)) \wedge (X1 = k4\_tarski X2 X3))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((\neg v11\_struct\_0 X0) \wedge ((v2\_petri \\ & X0) \wedge ((v3\_petri X0) \wedge (l1\_petri X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. (X2 \in k6\_petri \\ & X0 X1) \Leftrightarrow (\exists X3. (m1\_petri X3 (u4\_struct\_0 X0) (u1\_struct\_0 \\ & X0) (u2\_petri X0)) \wedge (\exists X4. (m1\_subset\_1 X4 (u1\_struct\_0 X0)) \wedge \\ & ((X4 \in X1) \wedge (X3 = k4\_tarski X2 X4)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. v1\_xboole\_0 (k1\_subset\_1 X0) \quad (4)$$

Assume the following.

$$\forall X0. m1\_subset\_1 (k1\_subset\_1 X0) (k1\_zfmisc\_1 X0) \quad (5)$$

Assume the following.

$$\forall X0. k1\_subset\_1 X0 = k1\_xboole\_0 \quad (6)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((\neg v11\_struct\_0 X0) \wedge ((v2\_petri X0) \wedge ((v3\_petri X0) \wedge (l1\_petri X0)))))) \Rightarrow (k6\_petri X0 (k1\_subset\_1 (u1\_struct\_0 X0)) = k1\_xboole\_0)$$