

t1\_ff\_siec (TMJsUZPWMVmFPByan-  
PhxKkEh4oKgx6v3WrM)

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Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_ff\_siec : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_net\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $g1\_petri : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_petri : \iota \Rightarrow o$  be given. Let  $k1\_partit\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_net\_1 : \iota \Rightarrow o$  be given. Let  $l1\_petri : \iota \Rightarrow o$  be given. Let  $u1\_petri : \iota \Rightarrow \iota$  be given. Let  $u2\_petri : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1\_xboole\_0 X0) \wedge ((X0 \neq X1) \wedge (v1\_xboole\_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (2)$$

Assume the following.

$$\forall X0. k2\_xboole\_0 X0 k1\_xboole\_0 = X0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X1 X0)))) \Rightarrow (\forall X4. \forall X5. \forall X6. \forall X7. \\ & (g1\_petri X0 X1 X2 X3 = g1\_petri X4 X5 X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge \\ & (X2 = X6) \wedge (X3 = X7)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & (v1\_petri (g1\_petri k1\_xboole\_0 k1\_xboole\_0 (k1\_partit\_2 k1\_xboole\_0 \\ & k1\_xboole\_0) (k1\_partit\_2 k1\_xboole\_0 k1\_xboole\_0))) \wedge (v1\_net\_1 \\ & (g1\_petri k1\_xboole\_0 k1\_xboole\_0 (k1\_partit\_2 k1\_xboole\_0 k1\_xboole\_0) \\ & (k1\_partit\_2 k1\_xboole\_0 k1\_xboole\_0))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.v1\_xboole\_0 (k1\_partit\_2 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1 (k1\_partit\_2 X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X1 X0)))) \Rightarrow ((v1\_petri (g1\_petri X0 X1 X2 X3)) \wedge (l1\_petri \\ & (g1\_petri X0 X1 X2 X3))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(l1\_petri X0) \Rightarrow (k1\_net\_1 X0 = k2\_xboole\_0 (u1\_petri X0) (u2\_petri X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_xboole\_0 X0 X1) \Rightarrow (k1\_ff\_siec X0 X1 = g1\_petri X0 X1 (k1\_partit\_2 X0 X1) (k1\_partit\_2 X1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1\_petri X0) \Rightarrow ((v1\_petri X0) \Rightarrow (X0 = g1\_petri (u1\_struct\_0 X0) (u4\_struct\_0 X0) (u1\_petri X0) (u2\_petri X0))) \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.(r1\_xboole\_0 X0 X1) \Rightarrow ((u1\_struct\_0 (k1\_ff\_siec \\ & X0 X1) = X0) \wedge ((u4\_struct\_0 (k1\_ff\_siec X0 X1) = X1) \wedge (k1\_net\_1 (k1\_ff\_siec \\ & X0 X1) = k1\_xboole\_0))) \end{aligned}$$