

t8_ff_siec

(TMTb2vpuFp4viQ8FKpRaD7a5a3p9ALY2HM4)

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Let $v1_net_1 : \iota \Rightarrow o$ be given. Let $l1_petri : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_net_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_net_1 : \iota \Rightarrow \iota$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((r1_tarski X0 X1) \wedge (r1_tarski X2 X3)) \Rightarrow (r1_tarski (k2_zfmisc_1 X0 X2) (k2_zfmisc_1 X1 X3)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1_tarski X0 X1) \wedge (r1_tarski X2 X1)) \Rightarrow (r1_tarski (k2_xboole_0 X0 X2) X1) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 (k2_xboole_0 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1_relat_1 X2) \Rightarrow ((r1_tarski X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (r1_tarski (k2_relat_1 X2) (k2_zfmisc_1 X1 X0))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (5)$$

Assume the following.

$$\forall X0.(l1_petri X0) \Rightarrow (v1_relat_1 (k1_net_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l1_petri\ X0) \Rightarrow (k2_net_1\ X0 = k2_xboole_0\ (u1_struct_0\ X0)\ (u4_struct_0\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_petri\ X0) \Rightarrow ((v1_net_1\ X0) \Leftrightarrow ((r1_xboole_0\ (u1_struct_0\ X0)\ (u4_struct_0\ X0)) \wedge (r1_tarski\ (k1_net_1\ X0)\ (k2_xboole_0\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u4_struct_0\ X0))\ (k2_zfmisc_1\ (u4_struct_0\ X0)\ (u1_struct_0\ X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0\ X0\ X1 = k2_xboole_0\ X1\ X0 \quad (9)$$

Theorem 1

$$\forall X0.((v1_net_1\ X0) \wedge (l1_petri\ X0)) \Rightarrow ((r1_tarski\ (k1_net_1\ X0)\ (k2_zfmisc_1\ (k2_net_1\ X0)\ (k2_net_1\ X0))) \wedge (r1_tarski\ (k2_relat_1\ (k1_net_1\ X0)\ (k2_zfmisc_1\ (k2_net_1\ X0)\ (k2_net_1\ X0))))$$