

t19_e_siec
(TMYK39vmP72rGgDaJnbi4XXcVVaaNoq9jv6)

October 27, 2020

Let $v2_e_siec : \iota \Rightarrow o$ be given. Let $v3_e_siec : \iota \Rightarrow o$ be given. Let $l1_e_siec : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_e_siec : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_e_siec : \iota \Rightarrow \iota$ be given. Let $k8_e_siec : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_e_siec : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_e_siec : \iota \Rightarrow \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((r1_tarski X2 (k2_zfmisc_1 X0 X1)) \Rightarrow (r1_tarski (k2_relat_1 X2) (k2_zfmisc_1 X1 X0))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k4_xboole_0 (k2_xboole_0 X0 X1) X2 = k2_xboole_0 (k4_xboole_0 X0 X2) (k4_xboole_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow (k2_relat_1 (k6_subset_1 X0 X1) = k6_subset_1 (k2_relat_1 X0) (k2_relat_1 X1))) \quad (3)$$

Assume the following.

$$\forall X0. ((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow ((r1_tarski (k4_xboole_0 (u1_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) (k2_zfmisc_1 (k8_e_siec X0) (k7_e_siec X0))) \wedge (r1_tarski (k4_xboole_0 (u2_e_siec X0) (k4_relat_1 (u1_struct_0 X0))) (k2_zfmisc_1 (k8_e_siec X0) (k7_e_siec X0)))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((r1_tarski X0 X1) \wedge (r1_tarski X2 X3)) \Rightarrow (r1_tarski (k2_xboole_0 X0 X2) (k2_xboole_0 X1 X3)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.k6_partfun1 X0 = k4_relat_1 X0 \quad (7)$$

Assume the following.

$$\forall X0.k2_relat_1 (k4_relat_1 X0) = k4_relat_1 X0 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X0) \Rightarrow (v1_relat_1 (k4_xboole_0 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.(l1_e_siec X0) \Rightarrow (v1_relat_1 (u1_e_siec X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_e_siec X0) \Rightarrow (l1_struct_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.v1_relat_1 (k4_relat_1 X0) \quad (12)$$

Assume the following.

$$\forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow (k7_e_siec X0 = k10_xtuple_0 (u1_e_siec X0)) \quad (13)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k3_struct_0 X0 = k6_partfun1 (u1_struct_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow (k9_e_siec X0 = k4_xboole_0 (k2_xboole_0 (k2_relat_1 (u1_e_siec X0)) (u2_e_siec X0)) (k3_struct_0 X0)) \quad (15)$$

Assume the following.

$$\forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow (k8_e_siec X0 = k4_xboole_0 (u1_struct_0 X0) (k7_e_siec X0)) \quad (16)$$

Theorem 1

$$\forall X0.((v2_e_siec X0) \wedge ((v3_e_siec X0) \wedge (l1_e_siec X0))) \Rightarrow (r1_tarski (k9_e_siec X0) (k2_xboole_0 (k2_zfmisc_1 (k7_e_siec X0) (k8_e_siec X0)) (k2_zfmisc_1 (k8_e_siec X0) (k7_e_siec X0))))$$