

t3_pre_circ
(TMQKDEZJr7GiMSdJoF5fMfEDcq3PKXNWKPn)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (((k9_xtuple_0 X0 = k1_xboole_0) \vee (k10_xtuple_0 X0 = k1_xboole_0)) \Rightarrow (X0 = k1_xboole_0)) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow ((v2_relat_1 X0) \Leftrightarrow (\neg k1_xboole_0 \in k10_xtuple_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski\ X0\ X1)\wedge(r1_tarski\ X1\ X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_relat_1\ X1)\wedge \\ (v4_relat_1\ X1\ X0)\wedge((v1_funct_1\ X1)\wedge(v1_partfun1\ X1\ X0))))\Rightarrow(\\ (\neg v1_xboole_0\ X1)\wedge((v1_relat_1\ X1)\wedge((v4_relat_1\ X1\ X0)\wedge((v1_funct_1 \\ X1)\wedge(v1_partfun1\ X1\ X0)))))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_relat_1\ X1)\wedge \\ (v2_relat_1\ X1)\wedge((v4_relat_1\ X1\ X0)\wedge((v1_funct_1\ X1)\wedge(v1_partfun1 \\ X1\ X0))))\Rightarrow(\neg v1_xboole_0\ (k3_tarski\ (k10_xtuple_0\ X1)))) \end{aligned}$$